

Multiple Literacies in the 21st Century



**The Twenty-Eighth Yearbook
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This has been a time of transition for the *CRA Yearbook*. The new editorial team of Mary Beth Sampson, Patricia Linder, Francine Falk-Ross, Martha Foote, and Susan Szabo assumed responsibility. Therefore, we want to begin by thanking Patricia Linder for agreeing to a new model for the editorial team. She had previously served as a co-editor for 2 four-year terms and agreed to stay one more year in order to ease the transition. We are so grateful for her willingness to continue to serve and for her expertise, dedication, and commitment to CRA and the *CRA Yearbook*. You may notice that Pat's initials are not listed at the bottom of the Acknowledgements nor the Introduction. There is a reason for that omission—we did not send a pre-publication copy of either to her for approval because we knew she would not want a public acknowledgement. However, we want to say—Pat—Thank You!!!!

As always, we are grateful to all who gave both their time and expertise to make this yearbook possible. The authors of the manuscripts expended energy, thought, and patience as their manuscripts progressed through the time and labor intensive process from submission to publication. The *CRA Yearbook* would not exist without our authors' knowledge, commitment, and continued dedication to excellence. In addition, we are very thankful for and to the Editorial Review Board members who conduct peer reviews and facilitate the selection of manuscripts. Their contributions are critical to the quality of the Yearbook and we are grateful for the expertise and perseverance they continually demonstrate. We also value the support of the CRA Publications Committee, which is chaired by Timothy G. Morrison of Brigham Young University. In addition, we are grateful to the members of the CRA Board of Directors who have continually supported the editorial team and the publication of the *CRA Yearbook*.

Regardless of the composition of the editorial team, every year seems to be a year of transition for many of the people who are involved in the process of making the yearbook a reality. We are indebted to Carlyn Ross Schlechter who designed a cover which we think captures the multiple literacies' theme of this volume and is also visually intriguing. As co-editors, we thank her for her willingness to share her creativity and talent. In addition, we have had three outstanding editorial assistants who dealt with the infinite details involved in the complex procedure of producing a yearbook. Blake Bryant was our CRA editorial assistant at the beginning of the process and when he graduated we split the position between Margie Adams and Mario Campanaro. They all demonstrated dedication, expertise, enthusiasm, intellect, and commitment which facilitated a smooth transition and resulted in what we believe is a quality yearbook. We applaud all three for their willingness to go above and beyond the job description and invest long hours

in tracking and reading manuscripts in addition to communicating with reviewers, authors, and managing editors.

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MBS, SS, FFR, MF
December, 2006

INTRODUCTION: MULTIPLE LITERACIES IN THE 21ST CENTURY

The title of the twenty-eighth yearbook mirrors the theme of the 2005 conference—“Learning in the 21st Century with Traditional and Electronic Literacies.” We chose the title *Multiple Literacies in the 21st Century* in an attempt to reflect the contents of this yearbook which seem to approach literacy from a myriad of ways.

The keynotes portray this multiplicity. In his presidential address, Jon Shapiro shares a personal account of literacy that reminds us of each learner’s individual journey. In addition, his words remind all educators of both the privilege and responsibility we have to support each learner in his or her development of multiple literacies. The keynote address by Donna Alvermann emphasizes the vital importance of teacher education in ensuring that educators have the expertise to provide instructional environments that support students as they develop multiple literacies. She calls attention to the increasingly complex content texts that are pervasive in today’s world. Linda Labbo explores the merging of “old” and “new” literacies and provokes thought regarding effective ways to ensure we don’t devalue “old” literacies nor ignore “new” ones. Don Leu delves into new research paradigms that are emerging from multiple literacies. His keynote reflects not only the interconnectivity literacy brings but also the collaborative nature of literacy in today’s world. You will notice that while he was the “official” keynote speaker at the conference, the authorship of his keynote address is attributed to the Multiple Literacies Team and the authors are listed in alphabetical order. This authorship order reflects new collaborative and collegial ways of looking at literacy—and scholarship. Our children’s book author, Bettye Stroud, reminds us of the value of the more traditional literacies and oral history.

It was fascinating to “sort” the accepted manuscripts into sections and realize the multiple ways CRA members are exploring and implementing multiple literacies. Our award winners examined literacy at multiple levels. The excerpt from the award winning dissertation focuses on third graders and motivation, while the master’s thesis addresses adult education. Authors address the multicultural and affective dimensions of literacy through a variety of lenses. Teaching and assessment are examined from various research and implementation perspectives. And, of course, technological literacy is addressed.

Interestingly, during the process of reading and “sorting” each accepted article, we would make a decision as to where the article would “fit” and decide on a title for the section—then as we worked with articles in another section we would begin to question our original decisions about the previ-

ous articles and section titles. We recursively sorted and resorted the manuscripts, revised the section titles, moved manuscripts from one to another section, revisited, and revised. Finally, we began to realize that while each article might seem to “fit” in the section it was in based upon one’s perspective at the moment, you could also place it in at least one if not more of the other sections. We also realized that the sorting and renaming process had to cease in order for the yearbook to ever make it to press. Perhaps that is one of the most intriguing things you will find as you read the published articles and see the overlap—multiple literacies are found in each article—in each section. The articles provide evidence that we do not live, learn, nor teach in a world where there is one literacy that can be easily compartmentalized, used, or taught. We all use multiple literacies in our everyday lives and must continue to explore ways to empower our students to become proficient users of both the existing and emerging literacies that are shrinking our world and elevating the bar regarding what it is to even be considered a literate person.

We began the Acknowledgements by recognizing Patricia Linder’s CRA Yearbook editorship service. We would like to dedicate this 28th volume to her and all the *CRA Yearbook* editors who have completed terms of service since the *CRA Yearbook* was reinstated by the CRA Board at the Fall, 1989 meeting. In addition to Pat, they are: Nancy D. Padak, Timothy V. Rasinski, John Logan, Wayne M. Linek, Elizabeth G. Sturtevant, Jo Ann R. Dugan, and Barrie Brancato. In addition, Laurie Elish-Piper served as a guest editor for Volume 26. We value each of their contributions and the impact their dedication and expertise have had on the current yearbook. Their efforts have helped the CRA members share research and practice in ways which we believe have been crucial to the hope that learners in the 21st century will be successful users and consumers of multiple literacies.

MBS, SS, FFR, MF
December, 2006

**PRESIDENTIAL
ADDRESS**

ANOTHER POTHOLE IN THE ROAD: ASSERTING OUR PROFESSIONALISM

PRESIDENTIAL ADDRESS

Jon Shapiro

The University of British Columbia

Being back in Savannah is a nostalgic moment for me. My high school experiences were certainly not the “glory days” of my life. Early one morning over 40 years ago, I climbed out of my bedroom window, took my father’s car even though I had no license and drove to the nearest Long Island Rail Road station. I took a train into Manhattan and got a one-way ticket on a Greyhound bus for as far away from home as my paperboy-earned dollars would allow. That ticket took me here to Savannah. I can tell you that that was a scary trip for a short, “shop in the husky department,” timid kid. However, most of all it was an eye-opening trip to the horrible absurdities of segregation. Once the bus arrived at the Maryland border I was startled to see separate water fountains and washrooms even though I had read about them in my textbooks. It was shocking to see the nice bus station luncheonettes for whites and the run-down eating areas for African-Americans.



The differences between what we hold dear, such as the values of a nation and what we do in various walks of life, including education, are intriguing, sometimes incredibly frustrating, and often extremely troublesome. For example, it may be amusing that professionals with one set of beliefs about reading hold low levels of opinion about colleagues with contrary views since their arguments often have political overtones. Recall that proponents of whole language have been viewed as the New Left while skills-based proponents were painted as right-wing conservatives. And recently we have

witnessed the attacks on and by the members of the National Reading Panel and their colleagues in literacy education. While this may be ironic, it is really quite sad, quite silly, not at all helpful to the dialogue that must take place about reading development and reading instruction, and it is also really absurd.

Actually, I think many of my perspectives center around absurdities. Some are humorous, like the fact that dentists expect you to carry on a conversation while their fingers and tools are in your mouth. But many absurdities are not so humorous. Is it not absurd that in the midst of calls for evidence-based research in education the latest Bible-curriculum adopted by some 317 school districts in 37 states asserts that the Constitution of the United States is based on holy scriptures (Blumenthal & Novovitch, 2005)? This claim flies in the face of the fact that the Founding Fathers whose forebears were escaping religious persecution were explicit in their views regarding the separation of church and State.

Is it not absurd that under “No Child Left behind” the government will shut down schools, ostensibly due to poor teaching but then might disperse these teachers to other schools? Is it not absurd that our Colleges of Education are being criticized for being too philosophical and not practical, but the government is willing to allow individuals into classrooms after being fast-tracked by organizations like Teach for America and by “for-profit” companies that will train people solely over the Internet? Is it not absurd that the latest trends in teaching with later test results in mind, like the balanced literacy script being used in New York City, are known as “backward design” (Chan, 2005).

Yes, we do some absurd things in education and some of these relate to attitudes toward reading and to oneself as a reader; areas that I first began researching 28 years ago. One of the most important attributes that we say we try to foster in children is a love for reading and we hope that many children will become life-long readers. Many teachers and teacher educators say that these are worthy and important goals. In fact, in a survey of over 50,000 IRA members, this area was the fifth most frequent area of interest. But the reality is that there really has not been much attention paid to the affective domain in our professional publications or in our teacher education programs. This should seem absurd considering that a taxonomy of the affective domain was produced over 40 years ago (Krathwohl, Bloom & Masia, 1964) and almost 30 years ago Irene Athey (1976) decried the lack of research paid to this area.

In the past 40 years of *The Reading Teacher* there have been less than 30 or so articles, approximately 1% of the total articles about the affective domain. While teachers are interested in the affective domain, literacy educators who write for the profession and reading researchers virtually ignore

the affective aspects of reading and reading instruction. And I am not so sure that many of us include it in our classes or if school board members and other politicians are even aware of its importance.

When it comes to affect and reading, the influential reports of our profession from *On Becoming a Nation of Readers* to the latest handbooks on research have hardly mentioned these factors. When they do, they speak of motivation and engagement but with the focus on the improvement of test scores **not** the development of positive attitudes or the reading habit.

My position is that children's attitudes toward reading and how instruction impacts on their attitudes, their interests, and other affective aspects of their personalities such as self-esteem and self-efficacy **should** be critical areas of concern for reading researchers, teacher educators, and those who work with readers of all age levels, especially those experiencing difficulties. And, even though, many teachers identify this as an important area, what they do in practice tells us that it is not a priority. According to studies by Gerry Duffy (1987, 1992, 2002), teachers' instructional behaviors are governed by the commercial materials that are mandated in the district or state **not** by theoretical considerations or their knowledge of children or their professional judgement. His findings indicate that the formats of reading instruction have not really changed much in over fifty years. Reading textbooks and seatwork predominate and actual instruction in how to read is lost to time spent emphasizing accuracy and in testing children. While some might argue that the advent of balanced reading instruction has made such observations obsolete, visits to many current classrooms would indicate that not much has really changed. In the present era, we may blame the lack of change on the political interference that we have witnessed in education (McGill-Franzen, 2000), the narrowing of the literacy curriculum, the strict control of reading materials—events that Diane Ravitch claims has led schools to become “empires of boredom” (2003, p.162).

In a recent *New York Times* letter-to-the editor (Phillips, 2005), the writer wrote, “In the name of No Child Left Behind and high stakes testing we are turning teachers into machines; robots who must follow scripted curriculum, use mandated lesson plans, teach from restricted lists of books and teach formulaic patterns to match to the demands of test makers.” The same narrowing in England has led their Office of Standards in Education to conclude from a five-year research study that children are spending less time reading for pleasure due to the narrowing of the curriculum and the tests that accompany it, which have “squeezed storytelling and joy of reading out of schools” (Cassidy, 2005).

The research literature tells us that formats of reading instruction and the materials that we use to teach can have a profound effect on the way children view reading and the attitudes they have about reading. Research-

ers have found that young children at school entry do not possess a clear concept of reading. Over time, their concepts become more refined and are influenced by reading instruction. Considering the nature of most of today's "scientifically-based" reading practices, is it any wonder that young children tend to provide very narrow definitions of reading?

It is clear that one of the key perspectives that informs my thinking and work is that what we do in the name of improving reading ability often works against the promotion of positive attitudes toward books, toward reading, and toward oneself as a reader. And it is not as if we are blind to these problems. Many teachers have negative feelings toward the reading instruction that they provide. A teacher once responded to a question on her teaching of reading,

Well, I just seem to have this conflict about what I think about reading. I mean that these kids are just getting started in reading and that it ought to be a lot of fun, and they ought to be real enthused about this. Its real stiff and structured and the kids don't have freedom. And neither do I because it has to be a certain way and it just goes on and on with exactly the same kind of pattern all the time, and again its real boring for all of us. I guess normally, when we are doing our reading, it is more like a business arrangement that everybody has to endure. Reading shouldn't be like that". And teachers in the U.K. study told inspectors "teaching reading has lost its fun. (Cassidy, 2005)

I believe that we must bring the individual child and the individual teacher back to center stage as it was from the 1870s until the onset of the industrial revolution. Since that time, we have let standardized, controlled reading materials and the accompanying teacher's manuals, the supposed scientifically supported materials and methods, rule our classroom behaviors. They have **ruled** teacher behaviors even though they may have grown uncomfortable delivering that form of instruction. **Ruled** their behaviors even though we may have recognized that there is an assumption that the materials teach reading. **Ruled** their behaviors even though they may have become alienated from the reading instruction that they provide.

We cannot break away from these forms of instruction because teachers are not allowed to teach in a manner consistent with what is known about child development and children's social and emotional growth. And increasingly, teacher educators are being limited in what we present to future teachers in our university classrooms.

It seems to me that reading programs in many classrooms of North America have become similar to other dysfunctional systems. The truth of this dysfunction resides in my first perspective, the absurd things we do in our classrooms. While I will not repeat some of those absurdities I will ask

just one question: If we accept the fact that children may acquire the same abilities and skills around the same time, but not as if they had identical learning strengths and styles, why do we expect them to learn to read or learn any reading skill or strategy the same way, at the same pace, or with the same materials? Doing this is absurd, why if we had the same expectations for walking, talking, or potty training we'd create remedial walkers, talkers, and poopers!

You know, when I was in elementary school I was a short, fat kid. I took a lot of teasing. I felt a great deal of shame and, in reality, a great deal of pain. I would cringe when I heard the mocking chant of "shapippo the hippo" or even the more moderate version of "shapips the hips" used by my friends. I think that pain sensitized me to some of the other kids who were suffering. Suffering in reading group when they stammered over words or when they could not answer the teacher's question. Suffering the pain when other kids in the group, waiting like vultures, would cry out the familiar but taunting refrain, "Ooh, ooh teacher I know it."

I have to admit that I also felt the same pain later on in high school. Unable to comprehend certain mathematic relationships I sat cringing in my seat trying to elude being spotted by the teacher. I cringed before my father when he saw my mark on the New York State Regent's exam. I got a six and he said he could have lived with a zero since that would have shown I did not try, but a six just showed how stupid I was! I didn't think much about that pain when I did my teacher training. I didn't hear my professors talk about how kids might feel in the classroom, so I went out and began teaching. But you know what? I met the pain again when I started my career and even later, while on leave from the University of British Columbia, when I spent a year as a Resource Room teacher. I saw the kids who dreaded coming to school each day. The children who learn to be on automatic pilot, their eyes open and nodding that they understand but actually with their cognitive systems shut down in a desperate but often unsuccessful attempt to save their egos. The children no longer willing to try because the classroom is not a risk-free environment for them. I recognized a lot of the pain in their avoidance behaviors. The behaviors that were so familiar to me.

I do not think we can expect kids to not develop avoidance behaviors or negative attitudes when instruction does not meet their needs, abilities or interests. Can we expect anything else when we have absurd entrance and exit criteria even for kindergarten? When politicians maintain that there have to be certain levels of improvement in high stakes test scores regardless of the background and experiences of the children?

It seems to me that we are pretty successful in teaching kids to read even though many choose not to. We seem to have one constant in reading and that is our success to failure ratio. No matter which source you refer to,

you read that we successfully teach 75-80% of children to read fluently and with comprehension. That is an amazing figure that few in other endeavors could claim. Why if you were an athlete you would make millions of dollars a year for that level of success. But let's turn that figure around. About one in four to five kids is not successful. In North America that amounts to millions of children. Millions of our future generation dreading coming to school!

The negative feelings of self that result from difficulties in learning to read last a lifetime. I still remember mine. In Peter Johnston's (1985) award winning research with adult non-readers, the longevity of these feelings is confirmed. One of his subjects said:

What it is, it's the old feelings. It's like, y'know, well . . . something will trigger it. Like when I was a kid in school and they would ask me the first day, I would be in a first . . . say, a new class, and they would ask me to read, and the teacher didn't know that I couldn't read. Well, those feelings still can come back to me, and it's like a feeling . . . never . . . I can't begin to explain. It's like you completely feel isolated, totally alone, and when that sets in . . . course, I don't get it now like I did then . . . but it's still that quaint feeling will come over me, and if I . . . it overwhelms me . . . it . . . it . . . it takes you right up . . . you know, and you do, you shut right down. (p. 167)

I wish these kinds of stories were anomalies, isolated events, but I've been in schools in many states and provinces and in virtually every class where teachers are **mandated** to follow very **prescribed** ways of teaching with materials of **little interest** or **inappropriate** to the abilities of the students, I see children avoiding meaningful participation.

As an individual trained in early childhood education and development, I had real hope for many of the instructional strategies developed in the 1980's and 1990s. I had this hope because these strategies and the teachers that implemented them took into account the individual child. We relied on the teachers' professional abilities and judgement to be aware of individual differences that children brought into their classrooms. In Canada, we trust our teachers to make important decisions about formats of instruction and often in selecting appropriate material, and to be involved in creating the curriculum, something that Diane Ravitch called for in her book, *The Language Police: How Pressure Groups Restrict What Children Learn* (2003). Teachers who are well trained and treated as professionals also tend to be intuitively aware of the psychosocial needs of the children. What are these needs? Well, you may remember that Erik Erikson (1963) postulated psychosocial developmental phases. Even though some of these phases occur in early childhood, I have recast them for the elementary school years.

The first phase is about acquiring a sense of basic trust rather than devel-

oping mistrust. Erickson referred to this phase as the realization of hope. In infancy, developing a sense of trust requires physical comfort and a minimum of experiences of fear or uncertainty. If these are assured, trust will be extended to new experiences. A sense of mistrust arises from unsatisfactory physical and psychological experiences and leads to fearful apprehension of future situations. What happens in the “infancy” of a child’s school career? The child enters kindergarten and must establish trust in the teacher, as well as in his or her own ability to fit in socially and, in today’s kindergartens, academically. What happens to children who are not socially or emotionally or cognitively or developmentally ready to handle situations or tasks in kindergarten? Or for that matter, in any grade? The result is usually a retreat from involvement, loss of trust in the teacher, and the beginnings of doubt in one’s own ability.

Phase 2 revolves around acquiring a sense of autonomy rather than feelings of doubt and shame. In early childhood, the acquisition of a sense of autonomy requires the ability to prove one’s independence. A sense of doubt and shame arises when the child continues his or her dependency. Children who are successful in their initial instruction in reading and develop fluency in and enjoyment of reading realize that independence. What happens to those children who falter, either only slightly or by quite a bit? Initially, the child starts to doubt his or her own ability to actually progress in reading. Many express the belief that they cannot read. In the worst cases, the children develop pervasive doubt in their abilities and shame about themselves. As one begins to doubt, one begins to withdraw mentally from instruction.

Phase 3 is about acquiring a sense of initiative and overcoming a sense of passivity. As a child assumes more independence and responsibility for herself, she enters a stage of energetic learning. The child realizes a sense of purpose. She enters into her various worlds with all of her inquisitiveness and “adventuresomeness” intact. She may seek out reading experiences and challenges. She can interact with the author, text, and teacher. On the other hand, the child who has experienced frustration and even failure becomes increasingly passive and interaction with books and reading is avoided. Ultimately these children leave school with reading problems, poor attitudes, poor self-concepts, and often knowledge gaps since reading is still the primary means of acquiring information.

I believe very strongly that reading instruction which ignores the psychosocial, developmental needs of young readers **or** reading instruction that causes pain or shame **or** reading instruction that develops boredom or complacency in children is dysfunctional. When we can see the absurdities and the pain from outside the system but become enmeshed with certain methods and materials when inside the system, we are acting in ways that are parallel to what occurs in dysfunctional families. Often times in dysfunctional systems, there is the loss of ability to make choices. There is engagement in

behaviors that do not allow us to see the folly of the behavior nor the pain it causes in others. In dysfunctional systems, there is the minimizing or denying of one's own feelings. And the end products of dysfunction are pain, shame, and blame.

I've spoken of the pain of children who are not progressing in reading. There is also pain for parents and teachers: teachers who wish to be good at their jobs but are confronted with the reality that not all of their children are moving ahead in reading; parents who see their children's attitudes toward school change for the worse. And we can sense the shame of children who are not meeting the expectations of their parents and teachers, the significant adults in their lives. These episodes of pain and shame ultimately lead to blame. Some educators blame the child: "He is lazy," "She is an under-achiever." Some blame the parents: "What can you expect, his father was the same way." Children, seeing others succeed come to blame themselves. More recently, politicians are blaming teachers and now, teacher educators!

Dysfunctional systems survive in climates where we do not talk and do not trust. The overriding law of the educational system seems to me to be, "Do not allow talk about the real issues." I would say to you that high stakes test scores and grade equivalents are not the real issues. The issues should be whether teachers are allowed to teach in ways that recognize and respect the individuality of the learner and foster their own professionalism? Are children reading? Do they like to read? Do they know how to read for informational purposes? Are teacher educators allowed to exercise their professional expertise over the curricula in their reading education classrooms? Will government-funding agencies give serious consideration to research proposals that do not adhere to the government's agenda?

We also do not trust. Classroom instruction that continues to be difficult for children is rationalized away. The ability to invest confidence, reliance, and faith in children as learners has been lost. We have learned to not trust children to learn unless they are receiving direct instruction. We do not trust teachers to make instructional decisions and to select appropriate materials. And today we no longer trust teacher educators to develop future teachers who know the practical skills of teaching but also the reasons why these methods and strategies are appropriate.

These are harsh words and beliefs and they might even be offensive, but educators at various levels are now being **coerced** by a political movement to engage in curriculum delivery, choices of materials, and forms of evaluation that are extremely rigid, diminish their professionalism, and cause alienation. How do we promote the examination of pedagogical decisions in light of their impact on the quality of all of the children's experiences in school, not just on test scores? Should we be asking those with political power, if we are to choose between approaches or methods of instruction do we

choose methods that ignore individual differences?; that do not promote positive attitudes toward reading?; that do not promote the most accurate conceptions of the reading process?; that may harm one's self-esteem?; that reduce the act of teaching to assembly-line behavior? that alienate teachers from their own instruction and vocation? **OR**, Do we choose approaches and methods that are beneficial to all children and, in a wider sense, move beyond test scores and, at the same time provide professional growth and fulfillment for teachers?

To accomplish this in our roles as teachers of reading and teachers of reading teachers, we may sometimes need to strive to break the bonds of custom or policies that are imposed on us. This will not be easy to take on politicians and State departments of education, indeed the federal government is an enormous and daunting task. Certainly it is hard to visualize that single individuals can have much of an impact. Alone a David and Goliath outcome is never going to occur. However, what is the alternative? After all, conviction without action should have no meaning for us.

Back in the 1950s during the frightful time of Joseph McCarthy and his House Un-American Activities Committee, the cartoonist Walt Kelly, through his character "Pogo", wrote "We have met the enemy and he is us." Kelly's message was that in a democracy, those who do not think their voice matters or who procrastinate in making their voice heard have no one to blame for the situation but themselves (Kelly and Couch, Jr. 1982).

If we do not begin to raise our voices and become public academics, we who are the supposed experts, what hope is there for change? Has it been the case that our most learned colleagues in literacy education and, in fact, all literacy educators, have been disregarded or marginalized by those who control the public forum? Or has it been the case that we are too half-hearted or feel we will not have an impact to bother to be heard in the public forum? I would suggest to you that we, as an organization and as some of the most knowledgeable individuals about reading education, have an obligation to make public our ideas; not just to each other in our journals and at our conferences, but to the general public as well as to those who develop or shape educational policy.

I often think of a poem I read, "There's a hole in my sidewalk: An autobiography in five chapters" (Nelson, 1994).

Chapter I

I walk down the street.

There is a deep hole in the sidewalk.

I fall in.

I am lost . . . I am helpless.

It isn't my fault.
It takes forever to find a way out.

Chapter II

I walk down the same street.
There is a deep hole in the sidewalk.
I pretend I don't see it.
I fall in again.
I can't believe I'm in the same place, but it isn't my fault.
It still takes a long time to get out.

Chapter III

I walk down the same street.
There is a deep hole in the sidewalk.
I see it is there.
I still fall in. It's a habit.
My eyes are open.
I know where I am.
It is my fault.
I get out immediately.

Chapter IV

I walk down the same street.
There is a deep hole in the sidewalk.
I walk around it.

Chapter V

I walk down another street.

While the title of my speech uses “potholes” rather than holes in the sidewalk, the message is still the same. It is time for CRA to be a leader, to facilitate and assert our collective professionalism in finding a new way around the potholes that compromise the growth in reading and the enjoyment of reading for the various levels of readers that we focus on in this wonderful organization. As Marilyn Cochran-Smith (2005) stated in her Presidential address for the American Educational Research Association, we “. . . must also be public intellectuals using our expertise, our evidence, and our freedom to challenge a system that does not serve the interests of many students and to lead the way in another direction for the best” (p. 15).

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**KEYNOTE
ADDRESSES**

CONTENT AREA LITERACY: THE SPOTLIGHT SHIFTS TO TEACHER EDUCATORS

Keynote Address

Donna E. Alvermann

University of Georgia

Changing instruction in ways that produce genuine, wide-spread improvements in literacy and comprehension is no simple task for a society. Ideas do not flow effortlessly from teacher to teacher or from research to practice.

Ronald F. Ferguson

John F. Kennedy School of Government
Harvard University, January 2004

Written as part of the foreword to Dorothy Strickland's and my co-edited book, Bridging the Literacy Achievement Gap, Grades 4-12, this statement by Ron Ferguson, a Harvard professor who works with school districts to close achievement gaps, signals the complexity of making instructional changes. As teacher educators, we know this in our bones. If pressed, we'll even admit to being part of the problem at times. Challenges to the status quo affect us just as they do the teachers we teach. And that's not to say that we (and they) don't change. It's how that change comes about in the age of new media and information communication technologies that interests me here. Specifically, I want to focus on how the literacies of a new generation of youth, sometimes collectively referred to as Digital Natives (Prensky, 2001), work to create openings in one or more of our largely un-



questioned teacher education practices. But first, what do I mean by Digital Natives and to which unquestioned practices am I pointing?

Digital Natives

Referring to the youth of today as Digital Natives—that is, ‘native speakers’ of the digital language of computers, video games, and the Internet,—Prensky (2001) goes on to contrast their several years of practice at parallel processing and multitasking to the rest of us so-called Digital Immigrants, who like all immigrants retain to some degree our “accent,” that is, our foot in the past. In Prensky’s words,

the ‘digital immigrant accent’ can be seen in such things as turning to the Internet for information second rather than first, or in reading the manual for a program rather than assuming that the program itself will teach us to use it (n. p).

The importance of distinguishing between digital natives and digital immigrants for those of us in education, he adds, is this:

Digital Immigrants don’t believe their students can learn successfully while watching TV or listening to music because they (the Immigrants) can’t. Of course not—they didn’t practice this skill constantly for all of their formative years. Digital Immigrants think learning can’t (or shouldn’t be) fun. Why should they—they didn’t spend their formative years learning with Sesame Street.

Unfortunately for our Digital Immigrant teacher, the people sitting in their classes grew up on the ‘twitch speed’ of video games and MTV. They are used to the instantaneity of hypertext, downloaded music, phones in their pockets, a library on their laptops, beamed messages and instant messaging. They have little patience for lectures, step-by-step logic, and ‘tell-test’ instruction. (n. p.)

From Norton-Meier’s (2005) perspective on how she, the mother of two video-game playing adolescents, experiences the different worlds of digital natives and digital immigrants, it is a matter of how information is processed that sets the two apart. Whereas digital immigrants tend to process information methodically, often in a linear fashion, digital natives are given to multitasking and the integration of words, images, and sounds as they make lightning-quick decisions in interactions with others. For digital natives, “Graphics come *before* texts. . . . They play the game first and then read the manual for information or clues to solve the next problem or adventure” (Norton-Meier, p. 430).

Unquestioned Practices

The notion that pictured information might be preferred to printed text when it comes to learning new skills and content would likely come as a surprise to most digital immigrants. In a print-centric world, the practice of expecting students to acquire knowledge primarily from words and only secondarily from visuals such as photographs, charts, and other graphic images is for the most part unquestioned. The superiority of print-based learning is taken for granted, so much so in fact that visual literacy is largely ignored by today's advocates of "scientific" reading instruction.

But print-centric practices are not the only ones to dominate the literacy teacher education scene. Those of us who teach preservice and inservice courses in colleges of education in the United States frequently assume that traditional schooling practices (e.g., attending classes in regularly defined spaces and places for a set number of hours) are preferable to credit-bearing courses built around on-the-job training, long-distance learning, and the like. Although the increasing popularity of online courses, with their flexibility in space, place, and time, would seem to afford college level students more choices in how they learn, the actual content of the courses offered may not vary much from that which would be offered in more traditional settings.

This adherence to the "tried and true" in academic offerings has been described elsewhere as the Institution of Old Learning (IOL)—a tongue-in-cheek term coined by O'Brien and Bauer (2005) to denote the rigidity of certain historically situated practices and organizational structures in U. S. schools. Predating the federally legislated No Child Left Behind Act (2001) and scientific reading instruction by nearly a hundred years, the IOL attempts to fit new information communication technologies into its century-old rigid structures and practices. Unfortunately, while it is easy to critique the IOL in relation to newer literacies and technologies, it is quite another matter to loosen its stranglehold on the mindset of U.S. educators at large.

Using Youth Literacies to Create Openings

Given the Web's capacity for mingling words, images, and sound bytes, as well as a growing trend for digital natives to find their own reasons for taking on certain literate identities—reasons that include but also go beyond reading and writing to acquire school knowledge of academic texts—it is tempting to suggest that youth literacies may very well play a significant role in opening up the Institution of Old Learning (O'Brien & Bauer, 2005). How might this be done, and what would it look like?

First and foremost, an undertaking such as this would necessarily involve teacher educators finding ways to become grounded in young people's perceptions of their literate identities. Recently, Sarah Jonas, Director of Edu-

cation Services for The Children's Aid Society in New York, and I decided to do just that. Sarah interviewed Ariel Steele and Eric Washington, two youths who participate regularly in out-of-school time programs at The Children's Aid Society's Dunlevy Milbank Center, nearby where they live in Central Harlem (Alvermann, Jonas, Steele, & Washington, 2006). Piecing together interview transcripts, Sarah and I discovered that a great deal can be learned from carefully listening to young people talk about how they identify with particular reading and writing practices both in- and out-of-school. For example, consider the following things that Ariel and Eric wished their teachers knew about them as readers and writers.

Ariel wished her teachers knew how much she disliked having to wait while others finished reading something in class: "Actually, I just wish, you know, that if a group of people finish a book in class, we shouldn't be penalized to wait for the rest of the group to finish. They [teachers] should allow us to do a report on the book for extra credit or something, or maybe just let us start a new book on our own." To Sarah and me, Ariel's comment is reflective of what Prensky (2001) meant when he observed the following about digital natives:

They grew up on the 'twitch speed' of video games and MTV. They are used to the instantaneity of hypertext, downloaded music, phones in their pockets, a library on their laptops, beamed messages and instant messaging. They have little patience for lectures, step-by-step logic, and 'tell-test' instruction. (n. p.)

Both Ariel and Eric spoke about the importance of text messaging and instant messaging to their identities as writers. Neither thought their teachers appreciated fully the value of either form of messaging. Ariel said she and her friends text message and IM all the time, even sometimes during school when it is technically not allowed. When asked what young people their age find so appealing about text messaging and IMing, both Ariel and Eric stressed that it's easier, often, than talking. To back up this claim, they said they knew plenty of people their age who strongly dislike writing in school, and never write (pencil to paper) outside of school, but who think nothing of writing entire paragraphs while text messaging. Ariel also described a friend who creates alternate (screen) identities for herself when IMing in chat rooms, which Ariel described as being akin to writing a story. Yet this friend, Ariel explained, would never think of herself as a writer and does not enjoy writing stories in or out of school.

Text messaging as a popular form of writing recently surfaced as one of the major findings in a study I am presently analyzing that involves struggling middle school readers. Repeatedly, I hear the same refrain: "It's easier than talking." When asked what is meant by "easier than talking," a typical

answer involves something along these lines: “you can think about what you say and change your mind before blurting it out.” One young man stated that text messaging helped him to feel better about himself because he didn’t have to risk looking at a person’s face if he had unintentionally insulted that person. Another said that he didn’t want his friends to know how much their kidding bothered him—and that they wouldn’t know this if they didn’t have a chance to see his face or hear his voice. Although it’s difficult to say what is behind different youths’ motivations for text messaging and IMing, one thing seems clear: writing about one’s ideas and feelings carries less risk than expressing them orally. The implications of this for content area teachers bent on holding class discussions are worth exploring.

Under the Spotlight’s Glare

Although these examples are but a few of the many that I could have called on to illustrate my point about the importance of staying grounded in young people’s literacies, they represent what I see as a first step toward creating openings in the Institution of Old Learning. As teacher educators, we will do well to remember that while operating at “twitch speed” may be well nigh impossible for digital immigrants, it is still the case that the digital natives in our classes (and in the classes that our students teach) will be every bit as anxious as Ariel for some kind of individualized assignment that will let them escape the lock-step nature of traditional instruction.

It is also the case that we would do well as teacher educators to remind the preservice and inservice students in our content area classes of the importance of taking seriously what young people can tell us about text messaging and IMing. Speed of communication aside, these two forms of writing would seem to afford certain students—especially those whose self-efficacy may not be as high as others in their peer group—a sense of security and accomplishment. And this is not simply the perception of a few students whom I interviewed. For in a recent review of the experimental and quasi-experimental research on classroom-based literacy interventions taught by content area teachers in classes they were regularly assigned to teach, my co-authors and I (Alvermann, Fitzgerald, & Simpson, 2006) found that there is research to support teachers capitalizing on young people’s interests in socializing with their peers by building into the school day opportunities for collaborative reading and writing activities. Such activities are thought to foster engagement by helping students make connections between literacies they value outside of school and those they are expected to apply in their content area classes.

Of course, the use to which this information is put will depend to a large degree on the reception it receives in teacher education circles. If we turn our backs on ideas that seem too far outside the Institution of Old Learning—especially ideas that challenge the status quo,—then we end up with a

pedagogy that is one-sided where teaching in relation to learning is viewed as causative rather than contextual. Nearly a decade ago, Green (1998) warned our field against just such a move for the following reasons:

On the one hand, an important shift is underway from canonic forms and orders of knowledge, culture and textuality to what can be called the realm of the techno-popular. In terms of English teaching, this means shifting from literature to media, and hence from literary culture to popular culture as the focus for curriculum practice. . . . On the other hand, new and different formations of subjectivity are arguably emerging among young people . . . as they are characteristically immersed in new intensities of media culture, the flow of images and information, and their associated forms of life. . . . Taken together, these aspects of difference represent significant challenges for educational theory and practice. (p. 180)

In a nutshell, then, where are we, and more importantly, where are we going? Is it feasible to think that young people and their literacies might serve as guides of one kind or another on our quest to update our instructional practices? As teacher educators, are we willing to entertain the possibility that the students in our classrooms may one day decide that transforming the Institution of Old Learning is insiders' work—that they can do it without us? And, as a closing thought, just who is us?

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LIVING IN THE PROMISED LAND . . . OR CAN OLD AND NEW LITERACIES LIVE HAPPILY EVER AFTER IN THE CLASSROOM?

Keynote Address

Linda D. Labbo

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By the year 2007, it is projected that over 1,380 billion instant messages will be transmitted and received.

Retrieved January 5, 2006
<<http://www.russellshaw.net/ibdinstantmessage.htm>>

More than 2 million American children ages 6-17 have their own personal websites today—10 percent of the 23 million kids who have Internet access from home today—a threefold increase since 2000.

Retrieved October 15, 2003
<<http://www.grunwald.com/surveys/cfi/overview.html>>



We need to see how much more students will need in the future than we are now giving them. We do not [currently] teach students how to integrate . . . archival photo images, video clips, sound effects, voice audio, music, [or] animation [in their writing].

Lemke, 1998, p. 228

Many educators are grappling with how to effectively use computer technologies for literacy instruction because the goal for doing so is not clear. Questions teachers ask during staff development training, conference presentations and graduate courses indicate the breath and depth of teachers' concerns in this regard. Should I focus on using computers mostly to support my second graders' print-based literacy development? Should I be using the computers in my classroom to help my third graders make better scores on standardized tests? Should I be introducing my fifth graders to new strategies, like searching the Internet or critically reading the information they find on the Internet? How can I realistically add computer activities to instructional day that is already full? None of my curricular resources have any suggestions for using computers. How can I fit computer activities into the literacy curriculum when the teacher guide doesn't give me any directions or ideas? These and other questions persistently plague educators who are attempting to identify an appropriate goal for computer use in the classrooms of today and of tomorrow.

It is worth noting that computer technologies, transformative agents in many realms, create change because they help participants meet goals in unique, efficient, and creative ways. In other words, technology has the power to redefine the parameters, nature, and conduct of work mainly because clearly stated goals are interwoven into culturally situated mindsets. The purpose of this paper is three fold

1. to recommend an appropriate goal for using computer technologies in the literacy curriculum,
2. to provide a brief rationale for the goal,
3. to recommend pedagogical conditions for using computer technologies that accomplish the goal.

An Appropriate Goal for Using Computer Technologies in the Literacy Curriculum

Undeniably, computer technologies are transforming the business world. For example, on a recent trip I observed as my adult son sat in the comfort of his home office and conducted convenient, on-demand, virtual Internet tours of fifteen houses for sale. Doing so saved him countless hours of making phone calls, marking real estate ads in various newspapers from surrounding geographic areas, setting up appointments, driving by potential homes of interest, and visiting every possible house within his price range. The virtual tours gave my son fingertip access to various types of information—electronic slide shows of outside/inside photographs, interactive view 360 degree views of major living areas, and links to information that included when the homes were built, annual tax rates, average utility bills, asking prices

and the email address of realtors. In this and other instances, computer technologies are transforming the way work is conducted.

Realtors use Internet sites to advertise in cost-effective ways, to target specific audiences, to provide visual displays that allow buyers to *step-into* the environment, disseminate specific information, and to lay a foundation for a lucrative working relationship with potential home buyers—at least those who can afford to own computer technologies and those who know how to use Online tools. The architecture of the Internet space allowed realtors to accomplish old work in new ways, thereby transforming the culture and practice of home buying for the public. The bottom line is usually economic in the business world. Undoubtedly, the primary goal is leveraging the power of new, multimedia technologies to make a profit. The differences between old and new business practices in the realm of real estate are easily identified because the goal is clear and the technology tools utilized align in ways that are specifically designed to accomplish the goal.

However, understanding the unique ways that computer technologies may be used to enhance or transform literacy instruction is a more complex undertaking because, currently the goal appears to be rather schizophrenic—consisting of two discrete purposes that remain separate in the mindsets of many teacher educators, educators, and literacy researchers. For decades, technology has been touted as an educational change agent that will inevitably lead to a utopian school system and a utopian society. For example, after motion pictures hit the entertainment industry in the 1920s, Thomas Alva Edison predicted that they would replace textbooks, and perhaps even teachers, as the primary means of relaying information in classrooms (Tyback & Cuban, 1995). Even though the means of instruction would change, the goal for instruction would remain constant—to educate masses of Americans and American immigrants to be good citizens who are functionally literate. History tells us that Edison's technologically transformative prediction did not come to pass.

The Promised Land

More recently, proponents of computer technologies are likely to adopt the expectation that the classroom should be a Promised Land. In biblical history the Promised Land was a delightful place—flowing with milk and honey (Exodus III: 8). The *Promised Classroom* should also be a delightful place of dynamic learning—flowing with computer hardware, Internet connections, student-centered learning, and self-motivated learners (e.g., Leu & Kinzer, 2000; Labbo, 1996; Reinking, 1994). Furthermore, technology proponents expect that teaching and learning will be positively transformed when computer technologies are present in classrooms and correctly implemented (Cuban, 2001). Students educated in such an environment are likely to be

well-prepared for their literacy futures—futures that require highly complex, *new* computer-related literacy skills and strategies that are fundamentally different from *old* or conventional paper and print-related literacy skills and strategies (Leu, 2000).

No Child Left Behind

Recent policies and sources of educational funding in the United States have muddied a utopian, future-seeking perspective because they have focused primarily on how computers can and should be used to help students gain *old* literacy—fundamental, print-related skills ((NCLB Retrieved March 1, 2006, <http://www.ed.gov/nclb/landing.jhtml>) as those skills are assessed on standardized tests. The underlying goal is to use evidence-based instructional approaches to produce evidence on how well students are doing on standardized test. The unintentional result is that educators and parents may focus on students' test scores as the ultimate educational goal. Thus, educators, policymakers and researchers receive mixed messages and find themselves pondering about which goal is the most appropriate one to pursue. The time has come to move beyond either/or thinking and to seek a convergence of goals for effective computer technology use in the classroom and literacy curriculum. The time has come to explore a *convergent goal* that recognizes old and new literacies as two sides of the same coin. One side consists of traditional literacy and the other side consists of new literacies.

Rationale for the Goal of Convergence

Venezky (1995) defined literacy as the basic capacity to write and read in a specific language, with an approach to meeting the needs of daily life by applying reading and writing skills. This definition stands the test of time if, and mainly if, the needs of daily life include making meaning with the multimedia symbols, modes, and tools that appear on computer displays. Old or traditional print-based literacy refers to print-based skills and strategies that have been largely taught throughout the years with traditional pedagogical tools and materials that include paper, pencils, blackboards, flash cards, work sheets, writing journals, basal readers, children's literature, textbooks, encyclopedias, and library resources. Using these materials and tools aligned well with the type of literacy activities students encountered when they graduated from school. They could participate in the work place, seek higher education, and use literacy skills to accomplish personal and recreational goals.

Therefore, it follows that if we expand Venezky's definition to include computers as a part of the daily life students currently encounter and will encounter when they graduate, then the goals converge in productive ways. The definition also still works if we expand the notion of reading and writ-

ing skills to include not just print based information. “. . . [o]ne can substitute for ‘print’ various other sorts of texts and technologies: painting, literature, films, television, computers, telecommunications . . .” (Gee, 1996, p. 143). Indeed, Gee , states that he sees “. . . no gain from the addition of the phrase ‘involving print’ . . . other than to assuage the feelings of people committed to reading and writing as decontextualized and isolable skills” (p. 144). Students who graduate from schools of today and tomorrow should be well equipped to step into work places that demand the ability to use and continue to learn how to apply computer technology skills. They should be well prepared to seek higher education and be upwardly mobile because they are able to make meaning with computer-related interactive, multimedia modes and tools. Finally, students who graduate from schools of today and tomorrow should be able to meet professional, personal and recreational goals with computer technologies that allow them to enter into various discourse communities. New literacies are multiple in nature and refer to on-screen skills and strategies that include abilities to utilize multimedia resources for various academic, personal and communicative purposes.

An Example of Convergence of Goals

Consider the following example of goals that converge and yet represent two different sides of the same literacy coin. My mother, who went to school during the Great Depression era in the United States, learned old, paper and pencil literacy skills that allowed her to engage in citizenship, economic endeavors, social activities, and personal/recreational pursuits. My daughter, who is a new mother, learned a combination of old and new literacy skills throughout her 16 years of schooling within the United States. She also engages in citizenship, economic endeavors, social activities, and personal/recreational pursuits. Thus the goals are the same but the avenues of literacy and the skills and strategies required for pursuing those literacy engagements are different.

My mother went through schooling at a time when goals were aligned with how they were taught in classrooms. Students were not taught skills primarily so they could demonstrate how well they were doing and achieving on standardized tests that compared the test scores of other students. My daughter went through schooling at a time when testing was used primarily to inform instructional decision making in the classroom. Computer technologies were fairly new to her in a university setting and the literacy skills involved in accomplishing assignments required students to think critically about the multimedia information they assembled, and represented from Internet resources.

Figure 1. Convergent Goals

GOALS	CONVERGENT LITERACY GOALS BUT DISCRETE LITERACY SKILLS	
	MY MOTHER	MY DAUGHTER
Citizenship	Read newspaper before voting	Compared Internet campaign reports and video linked to statistics on Congressional voting record
Economic	Addressed wedding invitations with pen & ink calligraphy as a hobby/vocation by word of mouth	Began an Online purse business with an interactive web page
Social	Wrote & saved ribbon-tied WWII letters from husband	Sent e-newsletters to relatives with video clips, photos and stories about her new baby
Personal	Wrote poetry journals to reflect on life experiences	Published poetry on the Internet to share, receive feedback and discuss with other poets in a virtual writing group.

Before her death, my mother observed my daughter navigating through websites and sending e-mail messages. She said the whole thing made her head spin because the literacy strategies required to accomplish goals with the computer were outside of her realms of experience or interest.

Computers Support Old/Traditional Literacy Development

Computer programs can be used to support children's development of specific, traditional literacy skills. Blok, Oostdam, Otter and Overman (2002) conducted a meta-analysis of over 40 computer assisted programs (CAI) that were designed to support basic literacy skills practice and found that programs that include interactive game playing, decision making, and scaffolding tools (such as intelligent agents that give feedback or directions on students' choices) provide a small, but positive effect size on students' phonemic awareness, spelling, phonics, vocabulary development and comprehension. For example, computer programs that provide audio support and high levels of interactivity can foster students' phonological abilities (Reitsma and Wessling, 1998). Furthermore, studies indicate that when programs utilize digitized speech or provide isolated sounds of language that students blend by moving a computer cursor, their phonological awareness improves.

Creativity and word processing programs also support young students' writing development. For example, Cochran-Smith (1991) found that students who composed with word processing programs were able to write more complex passages than they did with paper and pencil because producing

text with keyboard typing, revising text by cutting and pasting, and printing out legible text was an easier endeavor. Children's metacognitive discourse, lexical density, and organizational cohesiveness also increased when using a word processing program (Bangert-Drowns, 1989; Jones & Pelligrini, 1996).

Computers Require New Literacies

New literacies involve combinations of symbolic modalities that are situated within specific cultural and social practices (New London Group, 1996). Meaning making with new literacies includes reading and writing in multiple modalities (e.g., graphics, animations, video, audio narration, music, special effects, hyperlinks, search engines, power point presentations, and print) in ways that are significant within cultural groups (Andrews, 2004). Lankshear & Knobel (2005) include the following forms of literacy within a new literacies classification scheme—electronic gaming, mobile communication, weblogs, multimedia text production, scenario planning, Zines, critical literacy, Fan Fiction, Magna/Anime, memes, and Adbusting. Making meaning with computer technologies in the work place, online, and in classrooms requires reading and composing in multiple symbolic modes (e.g., animations, visual graphics, audio narration, video, music, special effects, hyperlinks, search engines, presentation software, and print). New computer technologies and the resulting new forms of electronic texts such as e-mail and multimedia websites require new conceptions and competencies of literacy and literate behaviors (Flood, Heath, & Lapp, 1997; Leu & Kinzer, 2000).

It is evident that computer technologies and high speed Internet access are transforming how and when our students communicate. For example, I observed an undergraduate student at a local coffee shop engage in three different electronic communications within a time span of ten minutes. First, she talked with her roommate over her cell phone about which type and flavor of coffee she would recommend. Next, she sent and received a dozen instant messages over her cell phone. Finally, she opened her lap top computer and sent an e-mail message through the coffee shop's wireless connection. When I asked her to tell me about the messages, she said she was just keeping in touch with a friend and that the email message was a question about an assignment that she sent to a course instructor. The uses of the technologies might seem trivial to a casual onlooker; however, the ease with which the young woman utilized various technology tools for authentic, communicative purposes should entice us to learn more about the role that technology might also play in her university coursework.

Pedagogical Conditions

A basic premise of this paper is that classroom computer transformations will occur when the conditions of teaching spring from the recognition of convergent goals for literacy instruction. I suggest that the following four conditions will serve as guidelines to support teachers' efforts to successfully use computer technologies to transform literacy instruction.

Transformations Occur When Teachers Have Professional Development and On-Site Technology Support

Research suggests that teachers do not receive enough support that results in the highest quality of professional staff development (Trotter, 1999). Coiro (2005) relates that a key component of an effective model for staff development for in-service teachers includes utilizing on-the-job study groups that allow teachers to be more directive in the nature and content of training. A key component of effective study groups includes providing technical support so teachers may find a comfort zone and experience success with their first forays into utilizing computer technologies for literacy instruction. Such groups may consist of peer pairs as learners, or communities of teachers as learners (e.g., Lyon & Pinnell, 2001).

Transformations Occur When Computer Technologies are Integrated Throughout the Day

Teachers who model how to use computer technologies to accomplish *functional goals* help students gain both old and new literacies. One way teachers accomplish this objective is to design computer activities that are related to tried-and-true literacy routines. For example, teachers of young children can innovate on morning message, a routine that involves writing down dictation from students about the events for each day, by using a keyboard and a digital whiteboard to model old and new literacies. A digital whiteboard is an electronic dry erase board that serves as an interactive touch screen/monitor when connected to a computer (Solvie, 2003). Children learn concepts about print as they see text appear as it is typed from left-to-right with a return sweep. They may also learn how to use spell and grammar checkers as teachers demonstrate word processing tools. Later in the day, a teacher may model how to check an Internet weather station to decide if students need to wear coats on the playground.

Transformations Occur When Computer Technologies are Integrated Across the Curriculum in Collaborative Ways

E-mail exchanges between students in various geographic regions support students' traditional and new literacies. Email exchanges also create motivating and authentic reasons to communicate (Garner & Gillingham, 1998; Tao & Reinking, 2000). As students exchange electronic messages, they learn

the conventions required to communicate (e.g., conversational tone, recursive writing, including previous segments of message to create context).

Transformations Occur When Participants Compose Multimedia Productions that Multiply Meaning (Lemke, 1994)

Creating, representing and sharing ideas with multimedia resources supercedes the written word. Indeed, Lemke (1998) notes that multimedia work may not be based on an “organizing spine of text” (p. 288). For example, the organizing factor might be a graphic organization of images, video, or audio narratives that connect in unique ways. The larger notion behind multimedia composing with pictures, animation, audio narratives, music, transitional cinematic effects, links, and words expressed in various fonts, is that all of the media sources combine in ways that multiply meaning. In other words, taken together, the combination of media presents a more powerful and potentially deeper meaning construction than would words or images or any of the media resources would if they stood alone.

Concluding Comments

Technology will continue to impact everyday life and the literacy strategies employed to use technology. As the future unfolds, we are likely to experience the results of emerging trends, such as live media events that instantly display in cars, clothing that includes digital components that allow wearers to change the temperature, and the ability to access most of the world’s library collections through searchable formats.

How will computer technologies impact the everyday, literacy instructional life of the classroom? The answer is that—it depends. It depends in part on whether educators and researchers will consider seriously how old and new literacies can co-exist harmoniously and convergently in current and future classrooms. Doing so is not just a matter of exclusively using new computer technologies to support old ideas about literacy, with the hope that somehow by using new computer tools that students will incidentally learn new literacies. New literacies demand cultural, pedagogical and philosophical transformations. “When the only tool you own is a hammer, every problem begins to resemble a nail” Abraham Maslow (jokes2go.com retrieved January 15, 2006). When the only definition you have of literacy focuses on print-based skills, every computer activity you design begins to resemble paper and pencil learning. As teachers, teacher educators and researchers, our notions about our goals for technology and literacy will determine the focus and nature of our work.

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THINKING ABOUT OUR FUTURE AS RESEARCHERS: NEW LITERACIES, NEW CHALLENGES, AND NEW OPPORTUNITIES

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Abstract

This paper addresses the changing nature of literacy, as the Internet becomes this generation's defining technology for reading, writing, and communication. It outlines three challenges that confront us and several opportunities that might help us navigate through these challenges. It concludes by describing several steps we



must take, as a research community, to prepare our students for the new literacies that will define their future.

A perfect storm is taking shape in reading research and instruction. This storm is not over the horizon, it is not even on the horizon. Instead, as new technologies transform the nature of literacy, it confronts us on a daily basis, impacting every student, every teacher, every teacher education pro-

gram, every assessment instrument, and every state's reading standards. Ironically, most of us are not aware of the storm that rages around us as new technologies redefine what it means to be literate in the 21st century.

Why has this storm appeared now? Events have conspired to simultaneously bring together three challenges that we must recognize and begin to address. Each profoundly impacts our ability to prepare students for the reading and writing demands that will define their future.

Today, we would like to outline those challenges. Then, we will explore several opportunities that can help us to weather this storm, should we take advantage of them. Finally, we will outline steps that we might take together to advance our research field in order to better serve the literacy needs of teachers, students, parents, and our increasingly global community.

In a world in which the Internet has become this generation's defining technology for literacy and learning, we will require bold new thinking to reconceptualize our field. We hope to initiate that process.

Three Challenges that Confront Reading Research

The Challenge of Capacity

The National Research Council (1999, 2000, 2002) has recently concluded that a century of educational research has yet to produce an adequate research base to systematically, cogently, and consistently inform instruction, public policy, teacher education, and assessment in our nation. The lack of a research base is driven by the lack of adequately trained young researchers. Our graduate programs have not yet produced sufficient numbers of doctorates in education who have been adequately trained to make research and development their primary activity in the academy (National Occupational Research Center, 2004). According to survey data collected by the National Opinion Research Center, only seven percent of doctorates in education list research and development as their primary postdoctoral activity (Hoffer, et al., 2004).

The capacity challenge we see in education, generally, appears even more profoundly within the specific area of reading research, the area in education which many might suggest has the longest and richest historical tradition of research (Chall, 1965; Gates, 1921; Gray, 1984; Huey, 1908; E.L. Thorndike, 1917; R. L. Thorndike, 1973-74). One has only to observe the firestorm that recently erupted around the report of the National Reading Panel (National Institute of Child Health and Human Development [NICHD], 2000) to suggest that our research base in reading is not yet adequate to consistently inform instruction.

As in the general field of education, the lack of an adequate research base specifically in reading education is driven by the lack of adequately trained young researchers. Despite its central role, reading research produces

relatively few doctorates and channels the fewest number of those who complete the doctorate into research and development activities (National Occupational Research Center, 2004). As a result, we face a shortage of new colleagues entering our research ranks.

In the 2003-2004 academic year, for instance, there were 645 university faculty positions advertised in the U.S. that required expertise in the conduct of reading research as a job requirement, but only 84 doctorates were awarded that year with a reading research focus (Hartman, 2004). The pattern in preceding and subsequent years has been similar: the U.S. has a critical shortage of highly qualified reading researchers.

Today, intense global economic competition (Friedman, 2005) makes learning to read and use information sources more important to success than ever before, yet we have an inadequate research base on which to make public policy decisions and a desperate shortage of new doctoral students to remedy the situation. Our research capacity is woefully inadequate, just at the time when we require it the most.

The Challenge of Change

The challenge of capacity is complicated by the challenge of change: New technologies for information and communication regularly redefining what it means to be literate. Despite increasing recognition that the Internet will be central to our lives in the 21st century (Hartman, 2000; Partnership for 21st Century Skills, 2003), we have hardly any research into the nature of online reading comprehension and communication. Indeed, despite both informed speculation (Coiro, 2003; Henry, 2005; RAND Reading Study Group [RRSG], 2002; International Reading Association [IRA], 2002) and evidence (Coiro & Dobler, in press; Coiro, 2007; Henry, 2006; Leu, Castek, Hartman, Coiro, Henry, Kulikowich, & Lyver, 2005) to the contrary, our field often assumes that online reading comprehension is isomorphic with offline reading comprehension (Leu, Zawilinski, Castek, Banerjee, Housland, Liu, & O'Neil, in press). Most importantly, we seldom prepare new scholars to study the new dimensions of reading that take place online.

Why should this be an important area of research? Put simply, the nature of reading comprehension has changed and we have little research to direct either our instruction or our understanding of this area. The RAND Reading Study Group (2002) has summarized the issue:

... accessing the Internet makes large demands on individuals' literacy skills; in some cases, this new technology requires readers to have novel literacy skills, and little is known about how to analyze or teach those skills. (p. 4)

The issue is not unimportant. More than one billion individuals have Internet access (de Argaez, 2006; Internet World Stats: Usage and Population

Statistics, n.d.). One-sixth of the world's population is now reading and writing online, redefining what it means to be literate in an online world.

These Internet readers construct meaning from their reading experiences on the Internet in ways that differ from how reading takes place within the pages of a book; additional skills and strategies are required (Leu, Zawilinski, Castek, Banerjee, Housland, Liu, & O'Neil, in press). We know little about these differences but, if you have any doubt that online reading differs from offline reading, simply view the videos we have placed on the Internet of three different readers, reading on the Internet. These are available at: <http://www.newliteracies.uconn.edu/reading.html>. The online videos illustrate the new strategies readers require as they make choices about where to go and what to believe, constructing meaning during online reading.

We can see the changes talking place to reading reflected in data on Internet use within school settings, homes, and the workplace:

- In 1994, only 3% of all K-12 classrooms in the U.S. had Internet access; today 93% do (Parsad, Jones, & Greene, 2005).
- In 2004, nearly 75% of all households in the U.S. had Internet access (Neilson/Net Ratings, 2004).
- Eighty-seven percent of all students between the ages of 12 and 17 in the U.S. report using the Internet; nearly 11,000,000 do so daily (Pew Internet and American Life Project, 2005).
- More than 90% of students between the ages of 12 and 17, with home access to the Internet, report using the Internet for homework and over 70% used the Internet as the primary source for information on their most recent school report or project (Pew Internet & American Life Project, 2001).
- In 2005, 93% of workers in the U.S. in companies with more than 100 employees reported using the Internet and other online information resources in the workplace (Harris Interactive Inc., 2005).

It is clear that the Internet has become a vital new dimension of reading (International Reading Association, 2002; Lebo, 2003; Parsad, Jones, & Green, 2005; U. S. Department of Commerce, 2002).

Despite this recognition, there is relatively little understanding of, or consensus about, how reading comprehension instruction should be conceptualized or conducted in relation to online information (Coiro, 2003; RRSg, 2002). As a result, little instruction in the new demands of online reading comprehension takes place in schools (Karchmer, 2001; Leu, 2006). This shortcoming is due in large measure to two related observations: (a) we know little about the new reading comprehension skills and strategies that are required on the Internet (International Reading Association, 2002; RRSg, 2002) and (b) there is little research on instructional methods dedicated specifically to enhancing comprehension of informational texts on the Internet (Coiro, 2005).

While we are beginning to establish a research base in the reading of traditional texts (NICHD, 2000; Biancarosa & Snow, 2004), there is hardly any research, yet, on the nature of reading comprehension and learning on the Internet and with other information and communication technologies (ICTs). While we have few, new, reading researchers graduating each year with doctorates who seek careers that focus on research and development, we have even fewer researchers prepared to investigate how to best integrate the new reading skills required on the Internet into classroom instruction, assessments, or public policies (Coiro, 2003; Leu, 2006; Leu, Kinzer, Coiro, & Cammack, 2004; Partnership for 21st Century Skills, 2003).

That failure has important consequences for education in the twenty-first century because academic achievement is dependent on the ability to read, comprehend at high levels (Alexander & Jetton, 2002; Bransford, Brown, & Cocking, 2000), and solve problems (Dochy, Segers, Van den Bossche, & Gijbels, 2003) and the Internet is an increasingly important source of information (Lyman, & Varian, 2003). Most importantly, students with limited reading comprehension skills struggle with learning in school and are more likely to drop out (Finn, 1989, 1993; Wylie & Hunter, 1994) thus limiting their ability to fully seize life's opportunities for themselves and limiting their contributions to society (Thompson, Mixon, & Serpell, 1996). That challenge may increase as reading on the Internet becomes increasingly important and if we continue to fail to support students with online reading.

There can be little doubt that the Internet has rapidly become an important part of our daily lives (Lebo, 2003; Leu, Kinzer, Coiro, & Cammack, 2004; U.S. Department of Commerce, 2002). Reading on the Internet appears to require new skills and strategies yet we know far too little about them. We believe that we must begin to confront the challenge of change with an intensive research agenda to study online reading comprehension.

The Challenge of Those Who Need Our Help the Most

The challenge of capacity and the challenge of change are important elements of the storm that has hit our shore. The greatest challenge of all, however, may be the challenge of those who require the most support with online comprehension in schools because they have access to the Internet at home the least.

In an age of No Child Left Behind (No Child Left Behind Act of 2001, 2002) and increased attention to reading, our assessments of reading achievement in the U.S. have not kept up with the reading skills required by the Internet. Not a single state reading assessment required by No Child Left Behind measures students' ability to read search engine results; not a single state measures students' ability to read online to locate information; not a single state measures student's ability to critically evaluate information on

the internet; not a single state measures students' ability to synthesize information online from disparate sources; and not a single state allows all students to use a word processor for their state writing assessment (Coiro, 2005; Leu, 2006; Leu, Ataya, & Coiro, 2002).

The compounded result is that few students are being supported in developing the new literacies of online reading comprehension in school classrooms (Karchmer, 2001; Leu, 2006). The problem is greatest in our poorest school districts, the ones under the greatest pressure to raise reading test scores on assessments that have nothing to do with the Internet.

Because of traditionally low patterns of reading performance, poor urban and rural school districts face enormous pressure to achieve adequate yearly progress on print-based reading skills required by No Child Left Behind legislation (No Child Left Behind Act of 2001, 2002). As a result, schools most at risk must focus complete attention on the instruction of more traditional reading experiences, abandoning any instruction in the skills required for reading online: asking essential questions, searching for online information, critically evaluating online information, synthesizing online information, or communicating online. *It is the cruelest irony of No Child Left Behind that students who need to be prepared the most at school for an online age of information, are precisely those who are being prepared the least.*

This challenge is not inconsiderable. Eight million U.S. adolescents are considered illiterate (Biancarosa & Snow, 2004). Almost a third of adolescents cannot read at basic levels (National Center for Educational Statistics, [NCES], 2003). Moreover, nearly twice the number of white, economically advantaged students perform above the basic level as their economically disadvantaged peers, those with the least Internet access at home. Moreover, this gap is increasing over time (NCES, 2003).

With the new reading skills that the Internet requires, the reading achievement gap will only get larger as online reading experiences become more central to our literacy worlds. In the end, we appear to spend, know, and do little to help readers most at risk of dropping out of school, those in poor urban and rural school districts. Most importantly, we have not yet prepared a generation of highly trained researchers to focus their attention primarily on pursuing studies required to inform classroom reading instruction in ways that prepare our most economically challenged students to read and learn effectively in an age of global communication and online information.

New Opportunities

It is ironic that the U.S., arguably the nation with the most advanced Internet infrastructure, is far behind other nations with integrating the new reading skills required on the Internet into classroom instruction, public

policies, or assessment (Leu, 2006; Leu & Kinzer, 2000). New Internet technologies have leveled the playing field for economic competition among nations in ways not previously possible. Countries like Ireland, China, Finland, Japan, Canada, Australia, India, The Republic of Korea, and others understand this and are much farther along than the U.S. in establishing public policies to prepare their students for the new reading and writing demands of the twenty-first century (Bleha, 2005; Friedman, 2005). Their students are being prepared for the reading comprehension demands of workplaces in a globalized, information economy, often more thoroughly than we have considered preparing students in our own nation (Leu, 2006).

Despite the leveling of the global arena, itself presenting us with additional challenges to consider in the U.S., we see some opportunities in the current state of research in our field.

The Emergence of New Theoretical Perspectives

One opportunity we have consists of growing work in the development of better theories that will help us to better understand the questions we should ask. A number of different research communities have begun to explore the changes that new technologies, and the social practices they engender, bring to literacy. Scholars from disciplines such as cultural anthropology (Markham, 1998; Street, 2003; Thomas, forthcoming), sociolinguistics (Cope & Kalantzis, 2003; Gee, 2003; Kress, 2003; Lemke, 1998), cognitive science (Mayer, 2001), and information science (Bilal, 2000; Hirsch, 1999) have identified changes to literacy as they study the consequences for their individual areas of study. These fields are developing new ways of looking at the problem. As this takes place, a new perspective about the nature of literacy is beginning to emerge. This perspective, often referred to as “new literacies,” is still in its initial stages but it is clear to most that it will be a powerful one, redefining what it means to be literate in the 21st century (Lankshear & Knobel, 2003; Leu, Kinzer, Coiro, & Cammack, 2004).

“New literacies” is highly contested space however; the construct means many different things to many different people. To some, new literacies are seen as new social practices (Street, 1995; 2003) that emerge with new technologies. Some see new literacies as important new strategies and dispositions required by the Internet that are essential for online reading comprehension, learning, and communication (Coiro, 2003; Leu, Kinzer, Coiro, & Cammack, 2004). Others see new literacies as new Discourses (Gee, 2003) or new semiotic contexts (Kress, 2003; Lemke, 2002) made possible by new technologies. Still others see literacy as differentiating into multiliteracies (The New London Group, 2000) or multimodal contexts (Hull & Schultz, 2002) and some see a construct that juxtaposes several of these orientations (Lankshear & Knobel, 2003). When you combine these uses of “new literacies” with terms such as ICT Literacy

(International ICT Literacy Panel, 2002) and informational literacy (Hirsch, 1999; Kuiper & Volman, in press; Webber & Johnson, 2000), the construct becomes even more challenging to understand. However, most would agree there are at least four defining characteristics of an emerging new literacies perspective.

First, new technologies for information and communication and new envisionments for their use require us to bring new potentials to literacy tasks that take place within these technologies. While they may differ on the construct they use, each set of scholars would probably agree that the Internet and other new ICTs require new skills, strategies, and dispositions for their effective use.

Second, new literacies are central to full civic, economic, and personal participation in a globalized community. As a result, they become important to study so that we might provide a more appropriate education for all of our students.

Third, new literacies are deictic (Leu, 2000); they regularly change as defining technologies change. The new literacies of the Internet and other ICTs are not just new today, they will be newer tomorrow, even newer next week, and continuously renewed on a schedule that is limited only by our capacity to keep up. Of course, literacy has always changed as technologies for literacy have changed (Manguel, 1996). What is historically distinctive is that by definition, the Internet permits the immediate, nearly universal, exchange of new technologies for literacy. With a single click, a new technology such as Wikipedia can be distributed to everyone who is online.

Finally, new literacies are multiple, multimodal, and multifaceted (Kress, 2003; Lemke, 1998). Thus, they increase the complexity of any analysis that seeks to understand them and will benefit from analysis that brings multiple points of view to understand them (Labbo & Reinking, 1999). It may also suggest that the area is best studied in interdisciplinary teams as questions become far too complex for the traditional single investigator model (Coiro, Knobel, Lankshear, and Leu, in press).

We are using this emerging notion of new literacies as we conduct work on the nature of the new literacies of online reading comprehension, especially in classroom contexts for learning. To guide our work, we have been using this theoretical definition:

The new literacies of the Internet and other ICT include the skills, strategies, and dispositions necessary to successfully use and adapt to the rapidly changing information and communication technologies and contexts that continuously emerge in our world and influence all areas of our personal and professional lives. These new literacies allow us to use the Internet and other ICT to identify important questions, locate information, analyze the usefulness of that information, synthesize information to answer those questions, and then communicate the answers to others. (Leu, Kinzer, Coiro, & Cammack, 2004, p. 1570)

Within this perspective, new literacies of online reading comprehension are defined around five major functions: (a) identifying important questions, (b) locating information, (c) analyzing information, (d) synthesizing information, and (e) communicating information. These five functions contain the skills, strategies and dispositions that are both transformed by online reading comprehension while, at the same time, appear to somewhat overlap with offline reading comprehension. What is different from earlier models is that online reading comprehension is defined around the purpose, task, and context as well as the process that takes place in the mind of a reader. Readers read to find out answers to questions on the Internet. Any model of online reading comprehension must begin with this simple observation.

Initial studies, now beginning to emerge, are beginning to define a rich and complex picture of online reading comprehension. One study, among highly proficient sixth grade students (Coiro & Dobler, *in press*), found that online reading comprehension shared a number of similarities with offline reading comprehension but that online reading comprehension also included a number of important differences. A second study (Leu, *et. al*, 2005), found no significant correlation, among seventh grade students, between performance on a measure of offline reading comprehension and a measure of online reading comprehension (ORCA-Blog) with good psychometric properties. These results also suggest that new skills and strategies may be required during online reading. A third study (Coiro, 2007), using a regression model, found that while offline reading comprehension and prior knowledge contributed a significant amount of variance to the prediction of online reading comprehension, additional, significant variance was contributed by various aspects of students' online reading comprehension ability. The results of this study are also consistent with the belief that new skills and strategies are required during online reading comprehension.

Additional research is taking place on several, federally funded research grants in the U.S. One of these, the Teaching Internet Comprehension to Adolescents (TICA) Project (Leu & Reinking, 2005), explores the skills and strategies that proficient online readers at the seventh grade level report during online reading comprehension. The project website is available at: <http://www.newliteracies.uconn.edu/iesproject/>. Another, funded by the Carnegie Corporation (Hartman, Leu, Olson, & Truxaw, 2005), studies how best to integrate the new literacies of online reading comprehension and learning into the preparation of new secondary teachers in math, science, and English education. This project website is available at: <http://www.newliteracies.uconn.edu/carnegie/index.html>. Initiative like these, and others, are likely to provide a clearer picture of how online reading comprehension differs from offline reading comprehension.

New Definitions of Doctoral Preparation

We have been discovering a second promising opportunity in a somewhat new approach to doctoral preparation. Centered in the New Literacies Research Lab at the University of Connecticut is the New Literacies Research Team. This is a continually evolving consortium of professors, graduate researchers, school districts, organizations, policy makers, teachers, and school leaders who seek to prepare students for the new learning and literacy skills required by the Internet and other information and communication technologies. We engage in systematic study to define what students need to learn to use the Internet effectively for literacy and learning. We also study how best to assess and teach these new skills. What defines us is our extraordinary collaborative approach, our high standards, and our commitment to K-12 schools.

To be admitted, doctoral students must have previously taught in K-12 classrooms and must publish, or have a peer-reviewed article accepted in an important educational journal during their first year of doctoral study. We work as colleagues, recognizing the valuable insights that each person brings to the inquiry process. Professors, graduate researchers, teachers, school leaders, and others work shoulder-to-shoulder, equally contributing to the inquiry process and respecting one another as colleagues. Our team currently includes eight doctoral students, four professors, three undergraduates, one project coordinator, five urban school districts in Connecticut, and an extended set of partner organizations, policy makers, teachers, and school leaders who seek to prepare students for the new learning and literacy skills required by information and communication technologies such as the Internet.

The results of our highly collaborative style and high standards for one another has been extraordinary. In the last two years, our three advanced doctoral students have authored one book, twenty-one peer-reviewed articles or book chapters, delivered nineteen invited addresses and forty-eight conference papers, and provided thirty days of professional development to schools, universities, and states departments of education around the nation. They have been invited to institutes at the Universities of Oxford (UK) and Berkeley, serve as reviewers on major journals and conferences, and held positions on major committees in reading research organizations. Moreover, during these two years, they have secured nearly \$100,000 in research grants and their work has contributed to securing nearly \$2,000,000 more. The effects of establishing very high standards, supporting students in reaching them, and working within a collaborative, empowerment model has been stunning. We believe our experience holds great promise as we consider how to better prepare the next generation of researchers that we require.

The Potential of Collaborative Effort Within Our Larger Research Community

We suspect that the lessons we have learned about collaboration may point to an opportunity today for our larger research community to improve the collective impact of our work. It seems to us that the problems within the study of online reading comprehension and literacy, in a broader sense, are far too complex for any single investigator to fully understand or effectively study. Instead, it has become very clear to us that the study of the more complex issues we face in the study of online reading, writing, and communication demands teams that bring multiple perspectives (Labbo & Reinking, 1999) to the investigation. We believe that we will see increasing numbers of collaborative teams form to study the complicated nature of literacy in an online world that continuously changes as new technologies repeatedly emerge, requiring even newer literacies to fully take advantage of their potential for reading, writing, and communication.

The online tools that have been emerging recently such as blogs, wikis, and other social network tools, as well as the even newer ones that are yet to come, may permit us to bring our collective insights, from many different points of view, to the study of these critical issues. Of course, these new tools will also require each of us to acquire new literacies so that we might benefit from such an online, collaborative approach. We believe that greater collaboration that takes place online will be required if we hope to provide direction to schools and teachers during an age in which the very nature of reading continually changes.

Moving Forward: An Action Plan

We are convinced that we are in the midst of a perfect storm, driven by a constellation of forces that have come together to present our field with a series of important challenges. The most consequential aspect of this convergence is that, at a time when public policy appears to be focused on supporting our most challenged readers, it is actually preventing those readers from being prepared for their reading future. Students in our most economically challenged schools should be receiving the most instruction in the new literacies of online reading comprehension since they often have little opportunity to acquire these at home. Instead, the pressure to achieve Adequate Yearly Progress (No Child Left Behind Act of 2001, 2002) on assessment instruments that have nothing to do with online reading comprehension pressures teachers into abandoning instruction in how to read and comprehend information on the Internet.

What steps might we take within our research community to improve opportunities for all of our students? We believe that a way out of our situation may be found in some of the steps that follow.

Preparing More, And Better Trained, Doctoral Students

Recent statistics reflect the lack of doctorates in reading research who seek careers in research (Hartman, 2004). Our searches for new assistant professors force all of us to live this reality each year. Advertisements for new positions have appeared earlier and earlier until this year when we saw our first search advertised before the fall semester even began. There is intense competition for the very few, highly-trained, doctoral students who seek a career in university research. And, within this group there are even fewer who have been adequately prepared for both quantitative as well as qualitative research methods, something that will be increasingly required if we expect to raise the level of our doctoral preparation programs. Our field would benefit from having higher standards and far greater financial support to recruit the finest young educators into a life of research at a university. This is likely to require financial support that exceeds the limited resources available within universities, schools, and departments. Currently, this often comes from federally funded research grants. It may need to come in the form of a federal initiative to support doctoral students if we are serious about preparing, to a very high level, a new generation of literacy researchers.

Mentor Doctoral Students Within Collaborative Research Teams

If we acknowledge that research questions are now so complex that they can best be studied within collaborative research teams, then we must prepare doctoral students for these types of scholarly collaborations. It would be incongruous to prepare them for a world in which there is increasing collaboration with programs still based on the single investigator model. Doctoral programs need to be viewed as a rich collaborative effort, with scholarship taking place collaboratively, often with multiple major advisors and multiple students in place of a single advisor working closely with a single student.

Take Advantage of Online Social Networking Tools to Strengthen Our Research Community

To attack the most pressing and complex research questions that we face will require greater collaborative efforts within our research community. To advance this agenda, we will need to take greater advantage of social networking and communication tools that exist online and new ones as they appear. This will require each of us to become more proficient with the new literacies that we study. This may seem complex and challenging to those of us unfamiliar with the new literacies of online communication.

The nature of the problem may be seen in the examples of good colleagues who regularly post email replies to individuals on listservs, flooding hundreds of inboxes with personal messages. Simple mistakes like this cost time, especially when listservs have large numbers of subscribers.

Those who advance beyond email and listserv technologies to other forms of social networking tools may be rewarded with the potential to increase the significance of the issues that they study and to learn from colleagues who bring new insights to the collective work. They will bring new meaning to the ancient aphorism, “Many hands make light work.”

Such a development, of course, will require universities, traditionally based on the single investigator model, to change its reward system away from favoring only single-authored publications to those, such as this article, that results from joint, collaborative contributions.

Study Online Reading, Writing, and Communication in School Settings

We have gained greatly from important work on students’ use of new technologies for literacy in out-of-school settings (e.g. Alvermann, 2002; Chandler-Olcott & Mahar, 2003). We now require an intensive agenda on how best to support students with the new literacies of the Internet within school settings. We need to know how best to organize instruction in these new literacies so that those who do not have access to important new ICTs outside of school receive the best possible instruction within school on their effective use. We have far more research on out-of-school use of new literacies and far less on in-school use. We need to reverse that situation, mindful of the knowledge that we have already acquired from out-of-school contexts.

Recognize the Issue As Systemic

If we seek to fully integrate the new literacies of the Internet and other ICTs into the classroom, we must begin to understand that the problem will not be solved simply with research. Research will be important, but the challenge we face, like every aspect of school change, is systemic. Since change does not take place in schools without school leaders with the vision and capacity to lead, we must help school administrators to understand the nature of the issue and the solutions we have found. It will also require fundamental change in state standards, so that new literacies appear within the set of reading and content area standards, not in newly emerging technology standards. It is far too easy for teachers to see technology standards as the responsibility of others, something that happens once a week, down the hall, in a computer lab. Defining the problem as a reading issue will ensure that all teachers see it as part of their responsibility. It will also require these new literacies appear as a central component of our teacher education programs in reading and literacy. Finally, it will require new curricular materials to support teachers’ instruction in the classroom. All levels of the educational system must adjust to the new realities of new literacies required to use the Internet and other ICTs effectively.

Focus Considerable Research Effort on Changing Both the Content and the Nature of Assessment

A critically important aspect of the systemic change we require consists of changes in our assessment instruments. None of the skills of online reading comprehension are currently assessed by state reading tests (Leu, Ataya, & Coiro, 2002). Teachers and school leaders will have a hard time teaching online reading comprehension skills and strategies unless the effects of that instruction will be recognized by assessments that measure growth and diagnose needs. Some initial models are appearing measures (See, for example, Educational Testing Services, 2005). We require much more, however, as well as assessments that evaluate students' ability to read in the unbounded context that the Internet is, not artificial contexts intended to partially replicate the Internet.

Invest in Professional Development

Another critically important aspect of the systemic change we have to negotiate will be the important professional development that must take place in every school. Teachers will have to become newly literate with new ICTs if we expect them to pass these along to their students. They will also benefit from an understanding of new instructional models that take full advantage of the Internet such as Internet Workshop (Leu, 2002), Internet Project (Leu, Leu, & Coiro, 2004), inquiry models (Eagleton, Guinnee, & Langlais, 2003; Milson & Downey, 2001), and Internet Reciprocal Teaching (Leu & Reinking, 2005). Acquiring new literacies and learning how to integrate them into the classroom will take considerable time and resources. Schools must be prepared to invest both.

Understand that New Literacies are Both Multiple and Deictic

Forward movement will also require us to recognize that new literacies do not replace traditional literacies; they transform them, creating new, multiple forms of literacy that must be acquired. Moreover, we will need to also recognize that these new literacies are deictic (Leu, 2000), they continually change as even newer technologies appear, requiring even newer literacies for their effective use. The Internet ensures that any new technology for information and communication will rapidly spread. This creates an important challenges: How does one keep up with all the new literacies that continually emerge? The answer to this question is not yet clear. It may be that students will increasingly need to be prepared to learn how to learn continuously changing literacies from continuously changing technologies, rather than to simply master a fixed set of literacies. Learning how to learn may generalize far better to a landscape of continuous change in technologies and the literacies they require to effectively use them.

Take a Calculated Risk

What we see as necessary will not be easy to accomplish. It requires new ways of thinking, new ways of working, and new ways of teaching. As we have seen, it also requires extraordinary effort from all of us. Most importantly, it will require a calculated risk from you; we need each of you to bring your expertise to the study of online literacy. It will not be possible if the only ones who make the effort are a small handful of scholars who look at literacy and technology issues. These changes involve all of us. Regardless of what you study in your own work, we require your expertise to help define the future.

The Future of Reading Research Will Be Defined by the Choices We Make Today

Some might argue that the changes we have outlined in this paper run great risks. We would argue, however, that not making the changes creates far greater risk. If we do not change, literacy researchers will become increasingly marginalized during the important public policy debates that lie ahead, losing the opportunity to influence events that will take place in school classrooms. Others, outside the literacy research community, will fill the vacuum and define online reading, writing, and communication for us and without us. Research communities in assessment (International ICT Panel, 2002), library and media studies (American Association of School Librarians & Association for Educational Communications and Technology, 1998), educational technology (International Society for Technology in Education, n.d.), and learning research communities (Partnership for 21st Century Skills, 2003) are already beginning to do so. If this trend continues, we will be left alone to study reading issues defined by our past, not our future and, once again, the reading research community will be left out of important public policy decisions that affect classrooms, teachers, and students.

Authors' Note

The New Literacies Research Team is a continually evolving consortium of professors, graduate researchers, school districts, organizations, policy makers, teachers, and school leaders who seek to prepare students for the new learning and literacy skills required by the Internet and other information and communication technologies. We engage in systematic study to define what students need to learn to use the Internet effectively for literacy and learning. We also study how best to assess and teach these new skills. What defines us is our extraordinary collaborative approach, our high standards, and our com-

mitment to K-12 schools. Jill Castek and Laurie Henry are currently doctoral candidates in Educational Psychology; Julie Coiro is Assistant Research Professor in Education; Douglas K. Hartman is Professor of Education; Donald J. Leu is the John and Maria Neag Chair of Literacy and Technology; and Lisa Zawilinski is a doctoral student in Curriculum and Instruction.

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WRITING ABOUT AFRICAN AMERICANS, THEIR COMMUNITIES AND THEIR QUILTS

KEYNOTE ADDRESS

Bettye Stroud

University of Georgia

Bettye Stroud studied English and Literature in college. However, she later became a Library Media Specialist in an elementary school. She loved her work with the students there and received her Masters and Educational Specialist Degrees in Library Media. She now writes full-time and has four published titles. Other titles are under contract. Bettye teaches Writing For Children at the University of Georgia, and she speaks at conferences and workshops. She lives in Athens, GA.



Thank you for coming to my local author presentation! I really am local; I grew up in Athens, GA, some miles up the road from here. Before I became an author of children's books, I had the most wonderful career I could imagine: bringing children, books, and reading together. I spent many years as a School Library Media Specialist, but one day during summer vacation, my husband came home from work and announced, "I think I'll retire."

Some days later, I called my teaching assistant to tell her Howard was retiring, and I was going with him. She said all of the nice things about not wanting me to go, but I told her I had the years in.

She said, "Well, if you're going, this is your chance to write that book you're always threatening to write."

I didn't set out to write right away. We wanted to travel. We wanted to sleep late and do nothing, but the idea for a book kept rambling around in

my head. I missed the kids; I missed the book connections we'd had. I found myself hanging out with Jackie, the children's librarian at my public library. I missed the book connections we'd had.

Oddly, though, I began writing for adult magazines, but later, reviewing books for a highly-regarded multicultural journal is what finally pushed me toward writing books for children. The time came when I went to a conference on writing. I ran into another local woman there who also wanted to write for children. We formed a critique group of four people, and the rest is history. We are all now published, and we've brought in new members whom we help along. We are not all in the same genres, but we all find it easy to lend the support that our members need.

I reached into my past for stories. I grew up among aunts and uncles and extended family. An aged uncle taught me to read before I started to school. Actually he was a great-uncle, and he passed his love of reading along to me. I was somewhat of a loner, and the characters in the books he bought for me became my companions.

Though my own book characters exist as their own persons, I'm sure I draw upon my own childhood for ideas. Certainly, the southern landscapes in my books resemble the South in which I grew up. Certainly my stories are intergenerational. Children often ask me if I'm one of the girls in *Down Home at Miss Dessa's* (Stroud, 1996). Actually, I'm not, but the acts of kindness and the taking care of one another came right out of the teachings I received as a child. A quilt had to be included because I remember snuggling under Aunt Mag's quilts as a child. *Dance Y'all* (Stroud, 2001) is fashioned around a mean ol' snake, because there was a time when I didn't like snakes. Of course, the snake in this picture book is entirely harmless.

The Leaving (Stroud, 2001) is fashioned around a slave escape story passed down through my family, but now that *The Patchwork Path: A Quilt Map to Freedom* (Stroud, 2005) is published, I have two escape stories and yet another, very special quilt. Local ladies in a quilting club stitched this quilt for me.

So mostly, the inner nudges that push YOU out of bed in the mornings are the same nudges that propel me toward my office and away from the rest of the world in the morning. For those of us who write, we know we are sometimes working without a safety net. Either we are brazen fools or we love kids. We love opening up for them worlds where they can find themselves. We love creating for them fantasy lands where they can lose themselves. I work hard at making my writing inspirational. I try to convey to readers they are not alone in facing hurdles, failures, and disappointments. I want them to know there's always tomorrow. There's always hope.

I was surprised early on to find my titles appearing on such lists as "Books for Children On Philanthropy, Volunteerism and Related Themes," but actually, that's what I write. Sometimes, everything comes together.

The Patchwork Path: A Quilt Map to Freedom (Stroud, 2005), a picture book written for slightly older readers, has garnered an Oppenheim Toy Portfolio Gold Award. It was selected as a New York Times Best Book of 2005 and as a Bulletin Dozen by the Center For Children's Books. It became a Selection of the Gustavus Miles Center for the Study of Human Rights, and this title also received a Comstock Read-Aloud Award. It is a Selection of the Yale-New Haven Teachers Institute.

I'm elated and surprised at how well this title has been received by young readers and reading organizations alike. But sometimes everything just comes together.

Thank you for inviting me!

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**RESEARCH
AWARDS**

INSIGHTS ABOUT THIRD-GRADE CHILDREN'S MOTIVATION TO READ

Doctoral Dissertation Award

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Abstract

This study investigated the role of rewards in the reading motivation of third-grade students. The study was designed to determine the effects of reading-related rewards, nonreading-related rewards, and no rewards on 75 young children's subsequent engagement with text. In addition, this paper explores insights about gender differences related to literacy motivation. Data results showed that students who were given a book as a reward and students who received no reward were more motivated to engage in subsequent reading than those students who received a token reward. The gender analyses indicated that third-grade boys and girls are equally self-confident about themselves as readers, but boys value reading less than girls.

Educators agree that motivation plays a central role in literacy development. While phonemic awareness, phonics, vocabulary, fluency, and comprehension allow students to be skillful and strategic readers, without the intrinsic motivation to read, students may never reach their full potential as literacy learners. Many teachers voice concern about students who do not appear to be motivated to read (Hidi & Harackiewicz, 2000; Moore & Fawson, 1982) and after five decades of intensive research, questions still remain about the effect of rewards on intrinsic motivation. Research suggests that it is not a question of whether rewards enhance or undermine intrinsic motivation (Cameron & Pierce, 1994; Deci, Koestner, & Ryan, 1999a), but rather, under what conditions rewards undermine intrinsic motivation (Cameron, 2001; Deci, Koestner, & Ryan, 2001).

This paper provides an overview of an experimental study that investi-

gated the role of rewards in the reading motivation of third-grade students. The study was designed to determine the effects of reading-related rewards, nonreading-related rewards, and no rewards on young children's subsequent engagement with text. In addition, this paper explores insights about gender differences related to literacy motivation.

Based on the theoretical underpinnings of this investigation, it was predicted that offering a reward that is proximal to the desired behavior would mediate the undermining effects of extrinsic rewards. Consistent with the Cognitive Evaluation Theory (Deci, 1971), offering a book for reading should act as a signal of competence or success rather than being perceived as instrumental or controlling. Therefore, the offer should result in sustained engagement with text.

Overview of Theory and Research

The theoretical models for this study were Cognitive Evaluation Theory (Deci, 1971, 1972; Deci, Koestner, & Ryan, 1999) and personal causation theory (deCharms, 1968). Both these theories suggest that rewards undermine intrinsic motivation. A major hypothesis of this study was that *type of reward* may play an important role in whether motivation is undermined by rewards. In other words, rewards that are proximal to the desired behavior (books) may mediate the undermining effects of extrinsic rewards.

Reward proximity is defined as how proximal the reward was to the desired behavior. Rewards considered more proximal to the desired behavior were reading-related rewards (books) and rewards considered less proximal to the desired behavior were nonreading-related rewards (tokens). These rewards were chosen in accordance with Cognitive Evaluation Theory (Deci & Ryan, 1985).

Two questions led the development of the study. One, do third-grade boys and third-grade girls have a different motivational level toward reading? Two, which extrinsic reward system promotes reading best? Of particular interest in this study was whether the reward received (book/token/no reward) affected the child's subsequent choice of activity and reading engagement.

Methods

Design

This study employed a posttest-only design with two treatment groups and a control group that allowed the researcher to study the effects of the independent variable (reward type) on subsequent engagement in reading (Pedhazur, 1982). Each treatment group included 30 children. The control group contained 15 children. The data were analyzed using an electronic

statistical package for which p values are generated. A p value is the probability that a statistical result as extreme as the one observed would occur if the null hypothesis were true. If the observed significance level is small enough, usually less than 0.05 or 0.01, the null hypothesis is rejected. Due to the statistical package generating significance in this fashion, p values could be reported as values less than .01.

The boys and girls were randomly assigned to treatment groups: book, token, or control (no reward). Based on the analysis of the MRP, each treatment group was balanced for gender. The dependent variable was intrinsic motivation to read as measured by three indicators of task persistence: first activity selected, time spent reading, and number of words read.

Participants

The participants of the study were 75 third-grade students (37 girls and 38 boys) from three elementary schools in a large suburban school district serving 12,000 students. The two treatment groups included 30 randomly assigned students. The control group contained 15 randomly assigned students. The district is located in a mid-Atlantic state. The three schools from which the sample was drawn contain approximately 800 students each and have a poverty level (as per free/reduced lunch count) ranging from 18% to 25%. Reading achievement was held constant by choosing children for the sample who scored between the 30th national percentile and 60th national percentile in total reading on the Stanford Achievement Test, Ninth Edition.

Procedures

This study involved two phases. The first phase examined the student's motivation to read by using the Motivation to Read Profile (MRP) (Gambrell, Palmer, Codling, & Mazzoni, 1996). The second phase was accomplished by observing the students free-choice activity after receiving a reward for reading.

Phase One—Motivation to Read Profile

First, the Motivation to Read Profile (MRP) (Gambrell, Palmer, Codling, & Mazzoni, 1996) was given. There were two primary reasons for administering the MRP. The first reason was to determine if statistically significant differences in literacy motivation were present across the experimental conditions. Second, because prior research had indicated gender differences in motivation, it seemed appropriate to analyze the MRP to determine if gender differences were apparent, thus requiring gender balance in assigning students to treatment conditions.

Children responded to the 20 items on the MRP (Gambrell, et al., 1996) using a 1-4 Likert scale, with 4 representing the most positive response. The

analysis revealed that there was a statistically significant gender difference on the MRP total score (80 maximum score), with girls scoring higher than boys (girls mean = 66.67, SD = 11.30; boys mean = 61.31, SD = 9.27; $F(73, 69.57) = 2.247, p < .028$). Analyses were also done on the two subscales. Examination of the self-concept as a reader scale (40 being the maximum score) found that there were no significant differences (girls mean = 32.40, SD = 5.81; boys mean = 30.55, SD = 4.91; $F(73, 70.37) = 1.491, p < .140$). However, examination of the value of reading subscale (40 being the maximum score) found there were statistically significant differences (girls mean = 34.27, SD = 6.18; boys mean = 30.76, SD = 5.67; $F(73, 72.066) = 2.559, p < .013$). Statistically significant differences found on MRP total score and value of reading subscale score allowed for independent sample tests to be analyzed for each of the ten questions.

Of the ten questions that comprise the value of reading dimension, four questions revealed statistically significant differences for gender. Descriptive statistics and the independent samples tests for the responses to these four questions are presented below:

- One question: "My best friends think reading is: really fun, fun, OK to do, no fun at all" revealed a statistically significant difference (girls mean = 3.29, SD = .7403; boys mean = 2.57, SD = 1.0560 $F(73, 66.92) = 3.403, p < .001$), with girls responding more favorably. Girls reported more frequently that their best friends think reading is "fun" or "really fun."
- Second question: "I tell my friends about good books I read: I never do this; I almost never do this; I do this some of the time; I do this a lot" revealed a statistically significant difference (girls mean = 3.10, SD = .9364; boys mean = 2.31, SD = 1.2104; $F(73, 69.48) = 3.165, p < .002$), with girls responding more favorably. Girls reported more frequently that they tell their friends about good books they have read, "some of the time" or "a lot."
- Third question: "I think libraries are: a great place to spend time, an interesting place to spend time, an OK place to spend time, a boring place to spend time" revealed a statistically significant difference (girls mean = 3.51, SD = .8699; boys mean = 2.97, SD = 1.19; $F(73, 67.60) = 2.230, p < .029$), with girls responding more favorably. Girls reported more frequently that libraries are "an interesting place to spend time" or "a great place to spend time."
- Fourth question: "When I grow up, I will spend: none of my time reading, very little of my time reading, some of my time reading, a lot of my time reading" revealed a statistically significant difference (girls mean = 3.37, SD = .8612; boys mean = 2.89, SD = .8315; $F(73, 72.71) = 2.474, p < .016$), with girls responding more favorably. Girls

reported more frequently that when they grow up they will spend “some of my time reading” or “a lot of my time reading.”

Discussion of the Findings

The analysis of the MRP indicates that third-grade boys and girls are equally self-confident about themselves as readers. However, this study also revealed that boys are less motivated to read and value reading less than girls.

Specifically, boys reported that their best friends think reading is only “OK” or “no fun at all,” that they “almost never” or “never” talk to their friends about books, that they think libraries are only OK” or “a boring place to spend time,” and that when they grow up, they will spend “very little” or “no time reading.” It is not surprising that the findings of this study indicate that boys are less motivated to read than girls. A substantial number of previous studies have found similar results (Twist, Gnaldi, & Shagen, 2004; Ivey, 1999; Kush & Watkins, 1996; McKenna, Kear, & Ellsworth, 1996). It is clear that research needs to more clearly define why boys are less motivated than girls.

This post-hoc analysis offers insight into specific dimensions of reading motivation impacted by gender. The results are of interest for several reasons. First, there were no differences in the motivational level of girls and boys with respect to self-concept as a reader. On the other hand, there were statistically significant differences on the value of reading subscale. This finding suggests that boys value reading less than girls do and that valuing reading less accounted for their depressed total score on the MRP.

Two of the items where boys scored lower than girls involved choosing to engage in reading. The boys responses suggest that they do not choose to visit the library and they do not perceive themselves as choosing to read as an adult. The other two items where boys scored lower than girls involve their perceptions and interactions with their friends. The boys responses suggest that they perceive their friends as not valuing reading and that they do not spend time talking with friends about good books.

However, boys responded as positively as girls on a number of items. For example, both boys and girls indicated that they like receiving books as gifts. They also like their teacher to read aloud and both genders report that people who read a lot are interesting.

Phase Two—Results of the Observation

During the second phase, each child was engaged in a reading task for which they received a reward. The reading task asked the child to render an opinion after reading a short selection from one of six new trade books “being considered for purchase in the school library.” The reward they received

for the reading task depended on which treatment group they were assigned to (book, token, no reward). The book reward was a variety of grade appropriate fiction and non-fiction paperbacks. The tokens included Nerf balls, Pez dispensers, and friendship bracelets. Immediately following the completion of this task and receipt of the reward, each student was observed during a free-choice activity, which included the option to read, do a math puzzle, or do a jigsaw puzzle.

The analysis of the data regarding the children's choice of free-time activity after receiving a book, token, or no reward and their subsequent engagement with text revealed the following. The analysis of first activity selected revealed statistically significant differences between the students in the book and no reward group compared to the token group ($x = 28.420$, $p < .05$). Children's behavior was charted for first activity selected and any subsequent activity changes (see Table 1). The results also revealed a statistically significant difference between the book group and the no reward group compared to the token group for the number of seconds spent reading ($F(4,74)=9.464$, $p<.000$). Finally, the results for number of words read revealed a statistically significant difference between the book and no reward group compared to the token group ($F(4,74)=9.464$, $p<.000$).

Table 1: First Activity Selected and Subsequent Activity Changes

TREATMENT GROUP	NUMBER WHO CHOSE READING FIRST	NUMBER WHO STAYED w/READING	NUMBER WHO DID NOT CHOOSE READING AT ALL	NUMBER WHO CHOSE MATH FIRST	NUMBER WHO CHOSE PUZZLE FIRST	NUMBER WHO CHANGED FROM READING TO PUZZLE	NUMBER WHO CHANGED FROM READING TO MATH
Book N=30	23	9	7	4	3	6	2
Token N=30	5	1	25	16	9	3	0
Control N=15	11	6	4	1	3	5	0

To summarize, this study revealed that while the intrinsic motivation of the book group and the control group was comparable, the intrinsic motivation of the token group was lower on the three measures of intrinsic motivation. In other words, students who were given a book (proximal reward) and the students who received no reward were more motivated to engage in subsequent reading than the students who received a token (less proximal reward).

Discussion of the Observational Findings

The major finding of this study was that the students who were given a book (proximal reward) and the students who received no reward were more motivated to engage in subsequent reading than the students who received a token (less proximal reward). The findings from the present study suggest that the proximity of the reward to the desired behavior is a particularly salient factor in enhancing motivation to read.

As predicted, the effects of undermining were mediated by offering a reward more proximal to the motivational behavior being measured (subsequent engagement in reading). Rewards more proximal to reading (books) did not depress intrinsic motivation when compared to rewards less proximal to reading (token).

Conclusion

Motivation to read is a complex area of investigation (Gambrell, 1996). This paper explored two dimensions of motivation: gender differences and the role of rewards on third-grade students. The study revealed that rewards that are reading-related (books) do not undermine intrinsic motivation to read and that nonreading-related rewards (tokens) do serve to undermine reading motivation. Specifically, students who received reading-related rewards chose to return to reading and read more during the free choice period than students who received nonreading-related rewards. In addition, the examination of the findings related to the MRP revealed that third-grade boys do not differ from girls with respect to their self-concept as readers. However, in this study boys did not value reading as highly as girls.

This study had several limitations. This study has generalizability limited to the types of reward conditions used in the experiment (reading-related/non-reading related rewards). In addition, the results of the study can be generalized only to children of approximately the same age (third-grade) with approximately the same levels of reading achievement (30th-60th national percentile in total reading). It is acknowledged that reading motivation in younger or older readers could be influenced by factors not included in this study. Finally, this study was limited by a possible testing threat to internal validity. It is possible that the mere presence of the researcher was rewarding to some children.

Keeping in mind the limitations, these findings still have implications for educators who are interested in nurturing the reading motivation of boys. Specifically, they suggest that boys view books as a valuable reward or gift, that they enjoy teacher read alouds, and that they admire reading role models.

Future research should focus on how to construct classroom environments that foster intrinsic motivation to read and are highly motivating for all

children. In particular, research is needed on how to nurture the reading motivation of boys, particularly at the critical time when they are moving from learning to read to reading to learn.

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Appendix

Figure 2
Motivation to Read Profile

Reading Survey

Name _____ Date _____

Sample 1: I am in _____.

- Second grade Fifth grade
- Third grade Sixth grade
- Fourth grade

Sample 2: I am a _____.

- boy
- girl

1. My friends think I am _____.
 - a very good reader
 - a good reader
 - an OK reader
 - a poor reader
2. Reading a book is something I like to do.
 - Never
 - Not very often
 - Sometimes
 - Often
3. I read _____.
 - not as well as my friends
 - about the same as my friends
 - a little better than my friends
 - a lot better than my friends
4. My best friends think reading is _____.
 - really fun
 - fun
 - OK to do
 - no fun at all
5. When I come to a word I don't know, I can _____.
 - almost always figure it out
 - sometimes figure it out
 - almost never figure it out
 - never figure it out
6. I tell my friends about good books I read.
 - I never do this
 - I almost never do this.
 - I do this some of the time.
 - I do this a lot.

7. When I am reading by myself, I understand _____.
- almost everything I read
 - some of what I read
 - almost none of what I read
 - none of what I read
8. People who read a lot are _____.
- very interesting
 - interesting
 - not very interesting
 - boring
9. I am _____.
- a poor reader
 - an OK reader
 - a good reader
 - a very good reader
10. I think libraries are _____.
- a great place to spend time
 - an interesting place to spend time
 - an OK place to spend time
 - a boring place to spend time
11. I worry about what other kids think about my reading _____.
- every day
 - almost every day
 - once in a while
 - never
12. Knowing how to read well is _____.
- not very important
 - sort of important
 - important
 - very important
13. When my teacher asks me a question about what I have read, I _____.
- can never think of an answer
 - have trouble thinking of an answer
 - sometimes think of an answer
 - always think of an answer
14. I think reading is _____.
- a boring way to spend time
 - an OK way to spend time
 - an interesting way to spend time
 - a great way to spend time
15. Reading is _____.
- very easy for me
 - kind of easy for me
 - kind of hard for me
 - very hard for me

16. When I grow up I will spend _____.
- none of my time reading
 - very little of my time reading
 - some of my time reading
 - a lot of my time reading
17. When I am in a group talking about stories, I _____.
- almost never talk about my ideas
 - sometimes talk about my ideas
 - almost always talk about my ideas
 - always talk about my ideas
18. I would like for my teacher to read books out loud to the class _____.
- every day
 - almost every day
 - once in a while
 - never
19. When I read out loud I am a _____.
- poor reader
 - OK reader
 - good reader
 - very good reader
20. When someone gives me a book for a present, I feel _____.
- very happy
 - sort of happy
 - sort of unhappy
 - unhappy

From Gambrell, Palmer, Codling & Mazzoni. (1996). Assessing motivation to read. *The Reading Teacher*, 49(7). Copyright by the International Reading Association.

MARGINALIZATION OF ADULT LITERACY EDUCATION IN WORKFORCE PREPAREDNESS COLLABORATION: REPRESENTATION AND NEGOTIATION IN AN INTERAGENCY PARTNERSHIP UNDER THE WORKFORCE INVESTMENT ACT OF 1998

Master's Thesis Award

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Abstract

This case study examined the way interagency collaboration mandated by the federal Workforce Investment Act (WIA) of 1998 was accomplished at the local level in developing an adult literacy and basic education program within the context of collaborative workforce preparation efforts. The study's focus was the complex negotiation of organizational interests that take place when agencies with differing missions, philosophies, and priorities work together. An examination of such questions as who sits at the planning table when educational and social service agencies collaborate, how the interests of literacy education are negotiated in collaborative planning, and what role literacy education plays in planning workplace preparedness programs demonstrates that negotiation of interests is a critical and integral aspect of planning in a multiple-interest system.

The Workforce Investment Act (WIA) of 1998 (H.R. 1385) repealed the Adult Education Act and the National Literacy Act of 1991 (H.R. 751). It also linked literacy education with more than seventy social service agencies (Imel, 2000b) within a seamless delivery system of education, labor, and

health services under one roof. Enacted on the heels of welfare reform's Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (P.L. 104-193), it enlisted assistance from literacy educators to put welfare recipients to work. With the intent of equipping "citizens as workers" (Overview of Adult Education, 1997), the WIA placed literacy education directly into the "work-first" arena of workforce development focused on reducing welfare dependency (Askov, 2000; Belzer & St. Clair, 2003; Imel, 1999; Imel, 2000b; Imel, 2003; Kerka, 1997).

Given the legislative mandate for adult education to take a role in making over the welfare population into workers, adult educators and literacy educators have had an opportunity to participate in the development of programs that teach not only job skills but also academic and literacy skills. This literacy education is important, as nearly 50% of welfare recipients lack a high school diploma (National Institute for Literacy, 1994) and 30% have basic skills below those of the minimum skill level of all women in the lowest occupational skill areas (Cohen, 1994). The probability of being on welfare increases as literacy levels decrease (Barton & Jenkins, 1995), and raising welfare recipients' educational level is a "known indicator of economic advancement" (Sparks, 2002, p. 362).

Despite the urgency to design educational programs to prepare people for work, issues surrounding the participation of adult literacy and basic education within the one-stop system present problems for program planning that impact effective service delivery to system clients. Adult educators identify a number of questions involved in fulfilling the legislative mandate (Askov, 2000; Belzer & St. Clair, 2003; Imel, 2000b; Peterson, 2002; Sparks, 2001). These questions center on the legitimacy of adult literacy education in the one-stop service system and on issues of power in collaborative services delivery. More specifically, several adult educators have expressed concern that literacy programs collaborating in workforce preparedness efforts fail to prepare low-literate learners with the literacy skills they may need to succeed in the workplace (Catalfamo, 1998; Hayes, 1999; Imel 2000a; Peterson, 2002; Sparks, 1999, 2001). Some adult educators also point out that the WIA has subjugated adult literacy education under the boundaries of employment and training legislation (Hayes, 1999; Sparks, 1999, 2001) and caution that such legislative subversion has resulted in marginalization of adult literacy services.

The WIA provides guidelines for service delivery for one-stop partnerships, the legislation does not address the daily negotiation of organizational interests that take place when agencies with differing and sometimes conflicting missions work together to plan programs. Program development in a work-first system that emphasizes employment over development of literacy is problematic for many literacy educators who must rely on federal

and state funding. Issues that merit attention center on the direction of literacy services and the adequate preparation of underemployed and undereducated individuals for work. As adult educators grapple with the meaning of education for work mandated by legislation, they must also attend to the problems that arise from a new “arena of unequal power and control” (Sparks, 2002, pp. 362-363).

As adult literacy educators deal with the complicated issues that involve practical, philosophical, and ideological shifts in program design, as well as with the real and everyday problem of marginalization in a context that places more value on work skills than on basic skills, they must extend their awareness of planning in a collaborative system. Cervero and Wilson (1994, 1996) point out that program planners must attend to the dynamics of “people work” and argue that program planning is always a social and political activity in which planners must negotiate personal and organizational interests within situations embedded in specific organizational and historical interests. Adult educators must understand issues of power among agency partners and be ready to negotiate their interests in order to develop responsible programs that help learners succeed. Ultimately, the success of adult literacy and basic education programs, and hence the success of learners, depends on the effectiveness of adult educators to negotiate the interests of literacy education in the one-stop system.

In exploring the collaborative process of planning an adult literacy and basic education program at the local level, this case study considers the following three interrelated research questions:

1. Who sits at the planning table when educational and social service agencies collaborate to prepare individuals for employment?
2. How are the interests of adult literacy and basic education negotiated in the planning process in a context of collaboration to prepare individuals for employment?
3. What role does adult literacy and basic education play in collaborative efforts to plan workplace preparedness programs in the one-stop context?

Through an examination of these issues, this study seeks to understand the purpose of literacy education in the one-stop context, the politics of ideology underlying literacy education delivery to welfare learners in an interagency system, and the dynamics of power relationships informing program planning.

The purpose of this study was to investigate the collaborative planning process of a local interagency partnership that included an adult literacy education program within a one-stop system developed under the federal WIA. The study seeks to explore the place and role of adult literacy and

basic education within the one-stop center, focusing on the issues of legitimacy of adult education within a system fixed on the goals of moving welfare recipients into employment and on the politics of power that affect program planning. Case-study research that contributes to an understanding of how adult educators negotiate interests in the collaborative process of literacy education program development is critical to program planning today.

Methodology

Design of the Study

This case study investigated the development of an adult literacy and basic education program collaboratively serving undereducated and underemployed individuals through a larger workforce preparedness effort. The local WIA partnership of social service providers, adult educators, employment agencies, and business organizations examined in this study was a collaboration of eleven entities collectively known as CountyWorks (for the sake of anonymity, all individuals, organizations, and agencies are pseudonyms). Housed in an 86,000-square-foot One-Stop Center in a small Midwestern city, the interagency partnership was formed under the WIA to serve a county-wide welfare population whose poor work and educational histories resulted in barriers to employment. The goals of the partnership were both to ready the clients for work through education and training and to place them in employment. CountyWorks served hundreds of low-income clients per year on a \$3.2 million WIA grant.

Individuals were selected for participation in CountyWorks programs if they had low reading or math skills, lacked a high school diploma, or demonstrated a poor work history and had been or were about to be terminated from public support programs due to time limits for welfare eligibility. Financial assistance offered by CountyWorks covered housing, food, utilities, childcare, and transportation, and the clients were paid to attend CountyWorks's specialized job training, employment readiness, or adult literacy and basic education classes.

The CountyWorks partnership was selected for study because it provided a planning model for local seamless delivery of services to underemployed and undereducated clients. Two years after the CountyWorks partnership began its service delivery, it received a state award for excellence in collaboration and integration for providing seamless interagency services for workforce development training and education to clients.

This case study is based on interviews, observation, and document analysis, an approach that offered possibilities for describing organizational negotiation among agencies in the planning process, a way to evaluate motivations of planners, and a basis for drawing conclusions about the role of adult

literacy and basic education in workforce preparedness. The focus of the research was on the process of negotiation of interests involved in planning within the interagency partnership.

Data Collection

An exploration of the role of literacy education in the CountyWorks organization and in the One-Stop Center was accomplished primarily through interviews and site observation and secondarily through document analysis of key CountyWorks, Adult Literacy and Basic Education, and One-Stop Center artifacts. Data collected served to identify internal and external factors influencing the planning of the literacy and basic education program within the CountyWorks organization and the interests of the agencies involved in program planning. Following the case study work of Cervero and Wilson (1994) and the planning model described by Sork and Cafarella (1989) addressing “the most common planning logic found in the literature” (p. 234), the interviews, observation, and document review sought to determine the planning context, needs assessment, the development of program objectives, the development of the instructional plan, the development of the administrative plan, and the program evaluation plan.

Interview questions prepared in advance based on Sork and Cafarella’s (1989) model provided a guide during the semi-structured interviews, but interviews were informal enough to allow subjects to introduce issues corresponding to their varying roles in planning, their status orientations within CountyWorks, and their differing knowledge of the organization. This flexibility encouraged subjects to introduce issues they thought were important to planning and to suggest themes not anticipated by the questions. Questions focused on workforce preparedness programs offered to clients and the goals of the programs offered by the partnership, the functions and priorities of planners within the collaboration, the missions of the various agencies, the philosophical orientations of the planners, and the role of literacy and basic skills education within the partnership and the planning process. The administrators for the literacy and basic skills education program were interviewed twice for the study, and all other participants were interviewed once. Interviews were conducted in participants’ offices over the course of three months in hour-long audiotaped sessions.

Observation of CountyWorks and the literacy and basic education provider (referred to in this study as Adult Literacy and Basic Education) took place over the course of four months, during which time the researcher completed a ten-week volunteer internship within the Adult Literacy and Basic Education component of the CountyWorks’s education and work readiness training program. During the four-month period of observation, the

researcher's role ranged from participant observer as a volunteer intern to observer with minimum participation following the completion of the internship. In the role as participant observer, as a volunteer working with learners and through attendance at weekly interagency planning meetings, the researcher gained insights into the daily work and collaboration of the CountyWorks organization. Additional observation sessions included one monthly CountyWorks executive level planning meeting attended by partnership founders and directors and one monthly CountyWorks operational planning meeting attended by all staff members of the organization. Individuals whose interests and roles as planners are featured in this case study agreed by signed consent to be observed in their capacity as planners during the meetings.

Document review elicited data regarding the primary planners and the interests the planners negotiated in the course of constructing the adult literacy and basic education program. All documents reviewed for this case study were public records and ranged from such artifacts as agency-generated brochures describing activities and mission statements to minutes of planning meetings. Key documents providing insight into the program planning and the nature of literacy education within the organization included grant applications by CountyWorks and Adult Literacy and Basic Education, the CountyWorks memorandum of understanding required by the WIA, the CountyWorks client eligibility-screening document, and CountyWorks performance reports and bylaws. Although these document reviews were not the primary means of collecting data, they provided valuable information that supported the interviews and observations, shedding light on how organizational interests directly shaped people's judgments about the purpose and value of the literacy education program within the broader CountyWorks workforce preparedness program.

Participants

Twelve key individuals working within the CountyWorks partnership were selected for interviews based on their familiarity with the organizational structure and mission of CountyWorks, and their roles as planners within the organization. While the interviews of some individuals are featured prominently in this study, other individuals interviewed provided supportive statements and background information about the organization. The individuals whose interviews figure prominently in this study included:

1. the director and assistant director of Public Schools Adult Literacy and Basic Education;
2. the Public Schools Career Center director, who is the formal administrative overseer of Adult Literacy and Basic Education in the public school system;

3. the CountyWorks director;
4. the CountyWorks workforce development coordinator in charge of workforce preparedness training classes;
5. the Family Services director;
6. the Vocational Rehabilitation director;
7. the director of the Private Training Center, a private job training agency, who also doubled as the CountyWorks financial administrator; and
8. CountyWorks and Family Services case managers.

The interviewees listed represented six of the eleven educational and social service agencies of CountyWorks, all located in the One-Stop Center. They also represented the two distinct organizational functions of CountyWorks as an interagency partnership at the executive level and a social service agency at the operational level.

Additional interviews were conducted with CountyWorks organizational founders and Executive Committee members. Interagency partners not selected for interview in this study included the Chamber of Commerce, the Regional Business Development Agency, the Human Development Corporation, and the local housing authority. While the Chamber of Commerce and the Regional Business Development Agency played a critical role in founding and steering the direction of CountyWorks at the highest level of the organization, they did not have representatives located in the One-Stop Center who worked in collaboration with the other partners to plan workforce preparedness programs. The Human Development Corporation and local housing authority, agencies also entirely located outside of the One-Stop Center, were recent partners to CountyWorks at the time of the case study and were omitted from the interview process due to their representatives' lack of familiarity with the organization's planning process.

Findings

During the course of the interviews, three major themes emerged concerning interagency negotiation of interests that correspond to the study's research questions. First, corresponding to the question of who sits at the planning table when educational and social service agencies collaborate to prepare individuals for employment, the organizational structure of CountyWorks is such that Adult Literacy and Basic Education did not adequately represent its own interests in planning. Second, corresponding to the question of how the interests of Adult Literacy and Basic Education are negotiated in the planning process in a context of collaboration to prepare individuals for employment, a critical conflict existed between vocational education and literacy education that resulted in inadequate representation

of Adult Literacy and Basic Education's interests within CountyWorks. Third, corresponding to the question of what role Adult Literacy and Basic Education plays in collaborative efforts to plan workplace preparedness programs in the one-stop context, key interagency partners provided advocacy support for literacy education in addition to Adult Literacy and Basic Education's self-advocacy within the One-Stop Center to keep literacy education a vital service within the organization. The discussion that follows centers on these themes.

Who sits at the CountyWorks planning table is a critical factor in determining what programs are developed for clients in CountyWorks. In the case of CountyWorks, the organizational structure of the partnership limits the full participation of literacy and basic skills education in planning. Planning for CountyWorks programs occurs on two levels—the executive level and the operational level—within the partnership.

At the executive level, the interagency partners work together to coordinate services, determine program direction, set priorities, and make decisions regarding funding. Partnership agency directors from the Career Center, Family Services, State Employment Services, Vocational Rehabilitation, and the Private Training Center (a vocational training organization) meet on a monthly basis with the director of CountyWorks at the Executive Committee Meeting to decide broad issues of planning for CountyWorks programs.

At the operational level, CountyWorks functions as an agency offering clients on-the-job training and work experience, job skills training (e.g., in food service, nursing assistance, construction technology), career readiness classes, and adult literacy and basic education. Agency representatives, including caseworkers from CountyWorks and from Family Services and staff from the Career Center and from Adult Literacy and Basic Education, meet to plan programs and to discuss individual client assignments at the weekly Job Development Team meeting. CountyWorks staff members report that they also represent the Private Training Center—the financial administrator of CountyWorks—at the weekly meeting. It is important to note that at both the executive level and the operational level, the goal of planning for CountyWorks and its programs remains the same, to get people working and keep them working.

Despite the common goal of the partners to prepare people for work, a critical conflict regarding the approach to workplace preparedness existed within the CountyWorks organization. While all partners within the organization agreed that literacy education was an important program component of workplace preparedness education, CountyWorks program planning strongly emphasized vocational education in preparing clients for the workplace.

A conflict between vocational educators and literacy educators within CountyWorks resulted in inadequate representation of Adult Literacy and Basic

Education's interests in the partnership. Adult Literacy and Basic Education represented itself as a quasi-independent agency in planning at the operational level of CountyWorks, but at the executive level it must rely on representation by its administrative overseer, the Public School's Career Center, whose central mission is vocational training. The director and assistant director of Adult Literacy and Basic Education stressed that a preexisting ideological conflict of interest with the Career Center centered on vocational versus literacy education undermined representation of literacy interests at this highest level of planning. Interagency representatives at the executive and operational levels agreed that dependency on third-person representation limits the Adult Literacy and Basic Education's efforts to plan for and to advance literacy education as a workforce preparedness tool. Nevertheless, executive-level CountyWorks planners have rejected Adult Literacy and Basic Education's repeated requests for a seat at the executive planning table.

The Career Center director's interests within CountyWorks place vocational and basic skills education at odds and impeded representation of literacy education in the partnership's program planning. As a result, according to its director and assistant director, Adult Literacy and Basic Education relied on a traditional classroom within the One-Stop Center to deliver services and has been unable to integrate literacy services effectively into the innovative vocational and job training programs developed by CountyWorks. The Career Center director, whose extensive vocational education expertise made him a prominent participant at the executive-level planning table, claimed his right to represent literacy education on the basis of his role as the Public Schools superintendent of Adult Literacy and Basic Education. Notably, the director and assistant director of literacy services report, in contexts other than the CountyWorks's Executive Committee—providing literacy services outside of the One-Stop Center and even at CountyWorks's operational level—Adult Literacy and Basic Education operated nearly autonomously from the Career Center with the support of the Career Center director.

Within the CountyWorks partnership, the Career Center director perceived vocational and literacy education as rival enterprises and opposed interagency referrals to Adult Literacy and Basic Education. By his own account, he believed that the programs compete within the organization for clients that literacy education detracts from clients' efforts to prepare for work and that time spent attending to literacy issues prolongs the cycle of poverty for clients. The Career Center director's promotion of vocational education as a superior approach to workforce preparedness resulted in illegitimate representation of Adult Literacy and Basic Education.

The issue is apparent in the partnership. Several CountyWorks representatives reported awareness of an ideological conflict involving vocational and literacy education within the organization. The Adult Literacy and Basic Edu-

cation director and assistant director claimed that the Career Center director's agenda in planning has resulted in a lesser degree of service integration within CountyWorks programs than might otherwise be possible and has devitalized Adult Literacy and Basic Education's status within the partnership.

Relegated to a position of dependency in planning and despite leadership opposition within the organization, Adult Literacy and Basic Education nevertheless effectively served clients of CountyWorks within the One-Stop Center at the partnership's operational level. Key interagency partners provide advocacy support for literacy education in addition to Adult Literacy and Basic Education's self-advocacy within the One-Stop Center to keep literacy education a vital service within the organization.

The director of CountyWorks has been an outspoken proponent of literacy education as a workplace preparedness tool. Early in the history of CountyWorks, he negotiated with CountyWorks's executive-level members alongside Adult Literacy and Basic Education staff to gain a place for literacy education within the organization. The CountyWorks director is also responsible for forging the agreement among CountyWorks partners to provide an office and classroom site for literacy education services in the One-Stop Center. Though his representation has been effective for Adult Literacy and Basic Education, the CountyWorks director is not viewed by the partners as the legitimate representative for literacy education and so negotiates at the table for literacy services from a limited position of power.

Adult Literacy and Basic Education cultivates the support of CountyWorks partners through self-advocacy primarily in the form of promotion of onsite services customized to the needs of low-income clients of the One-Stop Center. The director and assistant director of Adult Literacy and Basic Education reported that continual promotion of available literacy services was a chief strategy for negotiating interests within CountyWorks. The approach has been successful in strengthening relationships with CountyWorks's largest referring partners—the Private Training Center, Family Services, and Vocational Rehabilitation—and has built a powerful base of support for literacy education among those agencies. Advocacy by these agencies is reflected at the executive level through endorsement of donated onsite office and classroom space and at the operational level in the high number of referrals made to literacy education, all of which are vital to the ongoing success of Adult Literacy and Basic Education in the workforce preparedness system.

In conclusion, this case study of CountyWorks demonstrates that even as interagency collaborations abide by legislative mandates to include literacy education in efforts to put people to work, limits on the degree of integration of those services into workplace preparedness programs may persist. The study suggests that preexisting relationships brought into new partnerships affect program planning. On the one hand, preexisting organizational

dynamics determined the priority of vocational education and the marginalization of literacy education at the highest level of CountyWorks planning. On the other hand, interagency relationships developed by Adult Literacy and Basic Education proved to be vital to success in serving clients of the One-Stop Center.

Implications for Practice

The CountyWorks scenario calls attention to an issue not adequately addressed by the WIA legislation. Partnerships formed from organizations with differing missions and purposes and that involve individuals with differing professional orientations will likely experience conflicts in planning. Serious issues of turf can inhibit delivery of services. Given the legislative mandate for the inclusion of literacy education in workplace preparation, the question literacy educators must explore is not whether they have a role in workplace preparation but how they will participate within the interagency system. Literacy educators must confront such issues as the politics of ideology surrounding delivery of services to welfare learners, the purpose and intent of literacy education in the one-stop context, and the dynamics of power relationships informing the development of literacy education programs within an interagency context.

Adult educators must enter the collaborative planning process equipped with the understanding that planning is a social activity that necessitates “people work” (Cervero & Wilson, 1994). Assessment of the organizational and social context of a program in which a literacy educator is working provides clues about the people work to be done so that literacy education can be represented effectively at the planning table. In an ideal world, everyone with an interest in the program gets to sit at the planning table; in reality, planners must prepare themselves for the work that places them at the planning table and keeps their agendas on the table. As literacy educators negotiate challenges presented by interagency collaborations working within a work-first culture, it is imperative that literacy education secure a voice in planning at every level of partnership efforts. Only through building effective relationships can adult literacy and basic education gain representation at the planning table in collaborative efforts and thereby move from the margins of workforce preparedness programs to the center of a system that currently sends individuals underserved by educational services into the workforce.

Adult literacy and basic education belongs in workplace preparation. Literacy educators have a valuable role to play in the education of individuals with poor work and educational histories. Literacy education must meet its responsibility to participate in the foreground of workforce preparation, on equal footing with vocational training, in order to achieve full authority

to advocate for those individuals with poor educational histories who otherwise enter the workforce prepared only for low-skill, low-wage employment.

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**AFFECTIVE DIMENSIONS
OF LITERACY**

DOES THE ACCUMULATION OF POINTS REALLY EQUATE TO HIGHER MOTIVATION TO READ?

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Abstract

The present study was completed to examine the relationship between intrinsic motivation and the accumulation of points associated with Accelerated Reader. During the fourteen week study, 68 fourth grade students in a suburban location near a large Midwestern city, read books and took quizzes on Accelerated Reader. Results of a pre- and posttest administration of the Motivation to Read Profile (Gambrell, Palmer, Codling, & Mazzoni, 1996) indicated differing levels of motivation associated with varying levels of point accumulation as a result of program use. Overall, a predictable decrease in motivation scores was found as a result of a regression analysis. Children who accumulated the largest number of points saw the smallest decrease in motivation scores, while those who accumulated between 15 and 35 points experienced the largest losses.

With the increased access to technology now seen in many schools, computer-based reading programs are becoming more prevalent, sometimes in place of a regular curriculum (Pavonetti, Brimmer, & Cipielewski, 2002). Included in this category is Accelerated Reader (AR), a creation of Renaissance Learning. The premise behind the program is simple: students read books, take quizzes over the content, and accumulate points based upon the number of questions that were answered correctly. Students are then motivated to read more as they receive feedback in the form of a quantitative measure of their comprehension: the number of points gained as a result of correct quiz answers. While not teaching skills, the program measures student comprehension and aids the instructor in making decisions regarding the students' instructional levels and reading skills.

Inherent in all of the discussion concerning AR is the role points play within the system. According to the Institute for Academic Excellence (1997), “AR itself is not a reading reward program; It is a task-level learning information system that provides quantitative information about student reading” and “AR book points are simply a quantitative measure of reading practice” (p. 2). However, researchers who study factors associated with motivation would say that points represent a performance-contingent reward (Deci, Koestner, & Ryan, 2001; Kohn, 1993). This apparent contradiction indicates the necessity for further examination into the relationship between the number of points and student motivation.

Theoretical Framework

Self-determination theory (SDT) (Deci, Vallerand, Pelletier, & Ryan, 1991) was developed to explain the relationship between motivation and behavior. According to SDT, behavior is initiated to satisfy three basic needs: autonomy (self-determination), competence, and relatedness. The need for autonomy involves the individual’s desire to self-initiate and self-regulate behavior. The need for competence includes the belief that actions can be completed successfully and the understanding of how to attain the necessary outcomes for this to occur. Finally, relatedness is explained by the need to establish relations with others.

Individuals who exhibit behaviors based upon meeting the aforementioned needs are said to be intrinsically motivated. According to Deci et al. (1991), “Intrinsically motivated behaviors are engaged in for their own sake—for the pleasure and satisfaction derived from their performance” (p. 328). In other words, the person is demonstrating self-determined behavior. This is contrasted with extrinsically motivated individuals, who are perceived to exhibit controlled behaviors as they complete tasks due to the influence of some external source (reward) (Deci et al.), such as stickers, points, and grades (Kohn, 1993). Ryan and Deci (2000) state there is a growing amount of evidence that using external sources related to some performance criteria, labeled performance contingent, as a means of influencing behavior undermines the desire for individuals to engage in activities normally performed for the sake of the self. This is due to the strong controlling aspect of this type of reward—the external locus of causality is the determining factor.

Examination of cognitive evaluation theory (CET) (Deci & Ryan, 1985) extends the tenets of SDT as it addresses the complex interaction of external sources, including performance contingent rewards and feedback, on perceptions of competence, autonomy and, subsequently, motivation. According to CET, external sources can be categorized as informational or controlling, depending upon the effect on the locus of causality for an action and the

interpretation by the individual. Informational factors are said to provide details regarding an individual's competence for an activity. Positive information furthers feelings of competence, making it more likely an individual will engage in a behavior and, subsequently, enhancing intrinsic motivation, whereas negative information can be interpreted to indicate incompetence and will decrease the desire to engage in a particular behavior (Ryan, Vallerand, & Deci, 1984). Factors deemed controlling, on the other hand, limit the autonomy experienced by an individual as the locus of causality shifts to completing an action in reference to the external source, as opposed to reasons related to the self. Limiting the self-determination of an individual undermines intrinsic motivation and potentially decreases the frequency of an activity.

Review of Literature

Guthrie and Wigfield (2000) stated "motivation is what activates behavior" (p. 406). Intrinsically motivated students read for enjoyment and pleasure as well as for knowledge (Wigfield & Guthrie, 1997). These students create opportunities for themselves to read and show greater persistence and engagement in literacy related tasks that are deemed challenging (Pintrich & DeGroot, 1990; Wigfield, Guthrie, Tonks, & Perencevich, 2004). In addition, students described as being intrinsically motivated have been shown to exhibit positive beliefs regarding their competency as readers (Jinks & Lorschach, 2003; Wigfield, et al., 2004). Thus, not only do they choose to read, but intrinsically motivated individuals believe in their ability to be successful when reading.

Research indicates intrinsically motivated students spend more time reading, and, as a result, demonstrate improved reading achievement (Fawson & Moore, 1999; Guthrie, Wigfield, Metsala, & Cox, 1999; Pavonetti et al., 2002). While spending greater amounts of time reading, intrinsically motivated readers employ strategies, such as self-monitoring and making inferences (Guthrie & Cox, 2001), which enhance long-term strategy development (Metsala, Sweet, & Guthrie, 1996). It can be inferred that intrinsically motivated readers not only read in greater amounts, but also use appropriate strategies while doing so. This aids the creation of further intrinsic motivation as a cyclical relationship has been shown to exist between strategy use and competency beliefs (Bandura, 1997; Wigfield et al., 2004). As students are taught and use strategy skills, they improve their reading and experience increased perceptions of ability. Higher competency beliefs impact intrinsic motivation as students want to read more, show improvement as they read, and so on.

Improved perceptions of ability are an important factor for developing intrinsic motivation as students are more likely to complete an activity if they believe they can succeed at the task (Schunk, 2003; Schunk & Rice, 1993).

An important component within the development of self-perception and intrinsic motivation is feedback. In relation to strategy use, Schunk and Rice demonstrated that students who were given instruction and feedback in the use of self-talk to regulate their own behavior displayed higher levels of self-efficacy due to the perceived sense of control and capability of applying strategies successfully. Perceptions of autonomy and competence have been linked through SDT to improved intrinsic motivation (Deci et al., 1991).

Recently, student motivation has been addressed using Concept Oriented Reading Instruction (CORI). CORI combines reading, writing and science instruction involving the use of real-world, concrete observations of a scientific nature to create student curiosity and interest (Guthrie et al., 1996). Research results have shown increased intrinsic motivation, which has subsequently led to increases in both strategy based literacy engagement and an increased frequency of reading (Guthrie & Cox, 2001; Guthrie, et al., 1996). Guthrie and Cox identified seven factors addressed in CORI which aid in the creation of engaged (intrinsically motivated) readers: goal setting, real-world interactions, interesting texts, autonomy support, strategy instruction, opportunities for collaboration, and evaluation. Three of these factors, autonomy support, opportunities for collaboration, and evaluation, have shown consistency with the findings of Deci et al. (1991) regarding intrinsic motivation.

In spite of the fact that research has indicated a number of positive outcomes associated with intrinsic motivation, it appears that the use of external rewards (stickers, points, food) is becoming increasingly prevalent in today's schools (Block & Mangieri, 2002; Fawson & Moore, 1999; Groce & Groce, 2005). Although the use of rewards is widespread, the research conducted examining the effects of external rewards on motivation has produced inconsistent results and much debate regarding the effectiveness of rewards. Some studies examining the use of rewards have shown decreased interest in activities associated with an extrinsic reward (Landen & Williams, 1979; Lepper, Greene, & Nisbett, 1973; Loveland & Olley, 1979), but others argue rewards can be effectively used to increase motivation (Cameron & Pierce, 1994; Sansone & Harackiewicz, 2000). The lack of conclusive evidence into the effectiveness of rewards has been attributed to the mediating effects of personal disposition (Plant & Ryan, 1985) and variations in methodology (Rummel & Feinberg, 1988).

Although the merits of rewards in general have been debated, those that focus on meeting a specified criteria, called performance contingent, have created the greatest discussion. Much of this debate centers upon the interaction of perceptions of autonomy and competence and their relationship to contingencies for reward receipt. Research has been conducted which has confirmed students who view rewards as controlling demonstrate lowered intrinsic motivation (Deci et al., 2001). Negative feedback in the form of not

reaching the performance criteria may result in states of anxiety and poorer levels of intrinsic motivation (Ryan & Deci, 2000). In addition, feedback affects competency beliefs and intrinsic motivation through its influence on task choice (Koestner, Zuckerman, & Koestner, 1987). However, Harackiewicz and Sansone (2000) posit that some individuals may strive to meet the goals associated with the performance criteria for rewards and show increased motivation as obtaining the rewards provides competence feedback. Other research corroborates this conclusion (e.g. Eisenberger, Rhoades, & Cameron, 1999; Harackiewicz, Manderlink, & Sansone, 1984). In an attempt to rectify discrepancies in this line of research, researchers found performance contingent rewards to negatively impact autonomy as students reported higher levels of tension and anxiety, however, feedback regarding competence obtained through reward receipt didn't undermine intrinsic motivation (Houlfort, Koestner, Joussemet, Nantel-Vivier, & Leke, 2002). As a result, questions still remain.

As with general motivation, research on the use of external rewards in relation to reading has produced inconsistent results. Some research studies (McKnight, 1992; Voorhees, 1993) have indicated incentive-based programs (points or tangible rewards) are likely to have a positive impact on intrinsic motivation to read. However, others (Carter, 1996; Edmunds & Tancock, 2003) have concluded motivation is negatively impacted or not affected as a result of the use of incentives. Guthrie and Davis (2003) found readers who struggle are typically more influenced by extrinsic motivators as they are less likely to read for their own purposes or out of curiosity. This is especially true when comparing middle school students to elementary school students as the former are especially likely to read for grades, which they equate with ability (Blumenfeld, Pintrich, & Hamilton, 1986), and competition.

Very little research exists which specifically explores the relationship of Accelerated Reader and motivation. Several studies have shown improved student attitudes towards reading as a result of the introduction of AR (McKnight, 1992; Vollands, Topping, & Evans, 1999). A significant finding by Vollands et al. was that girls who had access to AR exhibited statistically significant gains in attitude when compared to boys. These findings were corroborated by Mallette, Henk, and Melnick (2004) who found the lowest performing males showing poorer attitudes toward reading when compared to females. Of note in the latter study, however, was the conclusion by Mallette et al. that Renaissance Learning's claims of inspiring children to complete more recreational reading were not demonstrated.

As the majority of the research concerning Accelerated Reader has focused on achievement gains made by students, there is still not a definitive answer to the questions regarding whether this program promotes intrinsic motivation and the subsequent reading behaviors associated with this type

of motivation. This research was undertaken to further explore this relationship. The following research questions were used to guide this study:

1. What effect does the accumulation of AR points have on the intrinsic motivation to read?
2. What effect does the number of AR points have on the intrinsic motivation to read?

Methodology

Setting

This study was conducted at an elementary school in a suburban area near a large Midwestern city. The school population consisted of 553 students in preschool through grade 4 and 20 teachers. Eighty-eight percent of the students were white, 6% Hispanic-American, and 5% were of other ethnicities. Seven percent of the students met the criteria for free and reduced lunch status.

The study was implemented in five classrooms. Each classroom was self-contained with the teachers responsible for all of the major subject areas: spelling, language arts, reading, math, social studies, science, and health. The primary method of instruction was the prescribed basal series with periodic studies of trade books. The five classroom teachers were all Caucasian females. Their experience ranged from 1 year to 25 years, with an average of 12 years teaching experience, and three held advanced degrees.

A system of literacy-based incentives was in place at the school. Students received items such as dry erase boards and books based on the number of points accumulated using the Accelerated Reader program. Increasing point totals equated to prizes of increasing value. Participation was voluntary and teachers provided no incentives beyond what was offered at the school level from the parent teacher organization. All of the rewards were linked to literacy.

Participants

The study included 68 fourth grade subjects, 40 of whom were female and 28 male. Sixty-six of the students were Caucasian, one was Asian-American, and one African-American. Prior to being included in the data collection process for the study, the students were required to complete a parental permission form, which required both parent and student signatures. As a result, all subjects voluntarily agreed to participate in the study. The rate of return granting permission was 61%. A range of reading levels from 1.8 to 11.0, as measured by an administration of Accelerated Reader's STAR Reader, existed at the outset of the study.

Instruments and Measurement

The Reading Survey portion of the Motivation to Read Profile (MRP) (Gambrell, Palmer, Codling, & Mazzoni, 1996) was used to measure motivation to read. The survey consists of 20 items, written in a 4-point response scale, which were developed to be read aloud to students to ensure maximum understanding by the students and accurate assessment of student motivation levels. Administration was designed to take 15-20 minutes.

Scoring was dependent upon the most positive response which received the maximum amount of points (4). Responses decreased 1 point for each "less" positive response for a minimum score of 1. Cumulative totals could be used to score the test for overall motivation levels, or researchers had the option of computing scores based on the subscales of value of reading or self-concept. Scoring directions were included as was a scoring sheet which differentiated between those questions which addressed self-concept and value.

Procedure

Administration of the Reading Survey portion of the MRP occurred during week 1 of the study and again at the end of week 14. The five classroom teachers administered the instrument to all subjects ($n = 68$) based on the guidelines in the teacher directions of the MRP, which were provided by the researcher. Scoring was completed by the researcher according to the directions developed by the creators of the inventory. Differences in the pretest and post-test scores for motivation were then computed for each individual.

To facilitate comparisons, at the end of week 14, the researcher divided the participants into three groups (A, B, and C) matched by grade level based upon accumulated point totals. Group A consisted of those students who had accumulated 35 or more points. Members of Group B were those students with point totals between 15 and 35. Finally, Group C was composed of students with fewer than 15 points. Comparisons between the groups were deemed necessary to allow the researcher to examine the effects of point accumulation on motivation. As all students began the study with an equivalent number of points (zero), it was theorized that examinations of intrinsic motivation and point totals would indicate whether points were viewed as an extrinsic reward per SDT or as a feedback mechanism per Renaissance Learning. Point levels for group membership were selected based on the researcher's four years of experience with the program and knowledge of typical scoring ranges for the time period of the school year in which the study occurred.

Descriptive statistics were computed for the overall motivation scores for each of the three groups. Mean scores for each group were then tabulated for both the pretest and post-test scores on the Reading Survey as well as for the differences in pretest and post-test scores for comparison purposes. Separate Analyses of Variance (ANOVA) were used to analyze group scores

on the pre- and post-test scores and differences in motivation. To control for the increased risk of Type 1 errors that can occur when multiple ANOVAs are performed, a Bonferroni adjustment was used to determine an alpha value of .017. If a statistical significant difference was noted at $p < .017$, a post hoc comparison using the Tukey Honestly Significant Difference test was performed to note which groups were significantly different. Finally, a regression analysis was performed to examine the predictability of change in motivation scores based upon Accelerated Reader points.

Results

Data Analysis

Initial examination of the means and standard deviations revealed a high degree of variability within the data across the entire sample (see Table 1). Negative means for the change in motivation scores indicated an overall decrease in motivation scores at the time of the post-test administration of the MRP. In addition, an examination of the range of points revealed a large variance within each group of students with the range of scores encompassing the predetermined point differences for the groups (see Table 2).

Table 1. Motivation to Read Profile Scores

GROUP (N)	MOTIVATION								
	PRE-TEST			POST-TEST			MEAN		
	MEAN	S. D.	RANGE	MEAN	S. D.	RANGE	DIFF.	S. D.	RANGE
A (26)	68.38 _a	4.59	18	68.19 _a	6.54	22	-.03	4.61	18
B (16)	68.81 _a	5.01	20	65.87 _a	5.84	17	-3.31	4.61	13
C (26)	62.15 _b	8.49	41	60.54 _b	8.73	41	-1.69	4.19	17

Note. Means in the same column that do not share subscripts are significantly different at $p < .017$ using the Tukey Honestly Significant Difference test. No subscript indicates the mean was not significantly different than others in the column.

Table 2. Accelerated Reader Points

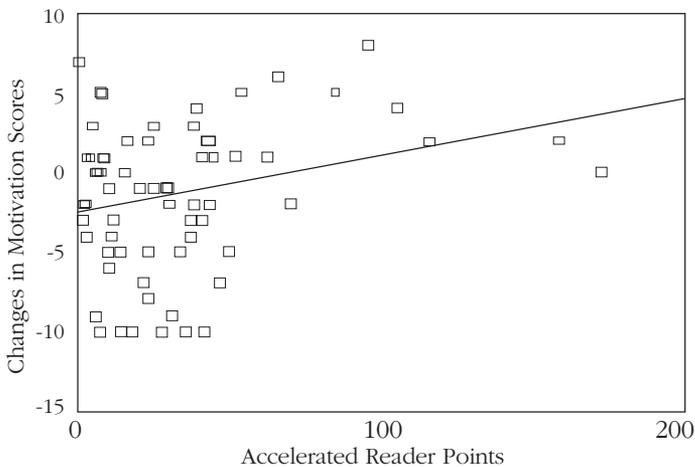
GROUP (N)	POINTS		
	MEAN	S. D.	RANGE
A (26)	63.44	37.36	136.60
B (16)	24.23	5.44	17.90
C (26)	6.57	3.96	14.20

Examination of the ANOVA for the pretest scores for motivation indicated there was a significant difference in scores among the three groups [$F(2, 65) = 8.869, p < .001$]. Further analysis using The Tukey Honestly Significant

Difference test revealed that Group C differed significantly from Group A and B (See Table 1). This indicated the group consisting of students with fewer than 15 AR points began the study with significantly less motivation than the other previously defined groups. The analysis of post-test motivation scores using the ANOVA also revealed a significant difference [$F(2, 65) = 7.351, p < .001$]. Significant differences were found between Groups A and C as a result of the post hoc analysis. Thus, Group C displayed a significantly lower level of motivation than Group A. The final ANOVA was used to determine if statistically significant gains/losses were made in scores from the beginning of the study to the post-test administration of the Reading Survey. The statistical analysis yielded no significant differences among AR groups on changes in motivation [$F(2, 65) = 1.929, p = .153$]. Based on the results from this portion of the analysis, differences in the number of Accelerated Reader points did not impact students' overall changes in reading motivation levels.

The second test of motivation was performed using a regression analysis to examine whether the number of Accelerated Reader points accumulated by a student predicted the gains or losses in overall motivation experienced by the student. The correlation coefficient for the two variables measured .27 with 7% of the variability explained; a statistically significant effect at $p < .05$ was noted. A large degree of variability within the data, however, makes it difficult to note the slope of the line (see Figure 1). The regression analysis suggests the higher the number of Accelerated Reader points, the less negative the change in motivation score.

Figure 1. Predicted Change in Motivation Scores by Accelerated Reader Points



Discussion

Previous research conducted on Accelerated Reader has provided no definitive answers to the questions regarding the benefits of the program on student motivation (Mallette, et al., 2004; McKnight, 1992; Vollandts, et al., 1999). The participants in the current study experienced predictable decreases in mean motivation scores across the three groups created for the purposes of the study. The indication that students were less motivated at the conclusion of the study than at the outset could be inferred as demonstrating AR points could be viewed as a performance contingent reward as the results are consistent with conclusions reached by others regarding decreases in intrinsic motivation when an external motivator is present (Deci et al., 2001; Kohn, 1993; Ryan & Deci, 2000).

Examination of the pre-test scores on the MRP revealed that Groups A and B were nearly equal in terms of their mean motivation scores. In fact, students who were members of what was considered to be the “middle” group in terms of AR points demonstrated the highest mean of the three groups at the time of pretest. However, after 14 weeks, the scores on the MRP for Group A remained relatively stable, while those for the students in Group B decreased by an average of 3.31 points, the highest amount for the three groups. This decline could be an indication of the middle group viewing points as an extrinsic motivator as research has shown extrinsic motivators have a short-term effect on motivation and interest (Loveland & Olley, 1979; Metsala et al., 1996).

A second important factor in the discussion of the decline in motivation of Group B is self-competency beliefs. Accumulation of AR points is dependent upon successfully answering questions on the quiz concerning the material. Students receiving lower scores may view points as a performance indicator. In addition, students are likely to discuss the amount of points each has accumulated. As students in the middle group realized they were not scoring as high as expected or accumulating as many points as those students that ended the study with the highest totals, they may have felt a decrease in the self-competency beliefs necessary for intrinsic motivation. According to research when this occurs a decline in intrinsic motivation is likely as the student no longer views himself as a competent reader in relation to peers who appear to be performing at higher levels (Guthrie & Davis, 2003; Koestner et al., 1987). Previous research has shown that negative self-competence views are likely to reduce intrinsic motivation to complete an action (Jinks & Lorschach, 2003; Wigfield et al., 2004). As these students experienced a reduction in motivation and interest, there may have been a similar decrease in quality, thus resulting in lowered achievement. This perpetuated the cycle and no significant gains were made as a result.

The opposite could also prove true for Group A in a discussion of why their scores proved more stable. Students who were answering more questions correctly accumulated a higher numbers of points, perhaps impacting their competence beliefs positively as they were provided the quantitative measure of their performance. This result would be consistent with conclusions reached by researchers (e.g. Cameron & Pierce, 1994; Sansone & Harackiewicz, 2000) refuting the claims of Deci et al. (2001) concerning the controlling effects of extrinsic rewards.

Metsala et al. (1996) stated that extrinsic motivators lead to “least effort” literacy practices. By this they meant students would exhibit only the behaviors necessary to complete an assignment or to attain a certain level of performance. Once the work or level was completed, motivation to continue the activity was no longer present without the inducement to continue by a new reward. The overall decrease in motivation, especially in the readers who were included in the middle group, could indicate that during the course of the study once students in Group B reached what they considered an acceptable level of points, motivation to continue reading decreased. This result would be consistent with theories regarding performance contingent rewards as set forth in the meta-analysis performed by Deci et al. (2001).

It was hypothesized at the outset of the study that students in Group C, those who accumulated the fewest number of AR points, would be the students who struggled with reading. This was generally true as 17 of the 26 students were reading below grade level, considered to be 4.0, at the outset of the study. However, due to the variability of the reading and motivation levels of the students in Groups B and C, no defining characteristic, other than AR points, could be assigned to each group. For example, one student in Group C earned .4 AR points. However, the student demonstrated an instructional reading level (IRL) of 5.7 and gained 7 points on the motivation scale. Another student, who had an IRL of 3.5, had accumulated 27.3 points, but revealed a decrease of 10 points on the Motivation to Read Profile. The conclusion that could be reached as a result of this information is that engagement with the program represents a key variable. The students in Group C were not engaged enough to use the program as shown by the overall number of points achieved. Competency issues may have played a role in this and could be indicative of a nothing ventured, nothing gained mentality. The students did not view themselves as competent readers and they reported lower intrinsic motivation to read. Wigfield et al. (2004) found students might be less likely to begin a task if they believed they would have to try hard, which indicated less ability to complete the task.

Implications

The research reported in this research examined AR and its effects on a specific sample of students, limiting the generalizations that can be made, it was however a necessary step in investigating Accelerated Reader and the points associated with program use. Future research should further examine questions regarding points to accurately assess how children view points and the implications of these views on reading behaviors. No research currently exists which specifically asks children who are exposed to instructional systems using points why they read. Investigations centering upon these questions could have a significant impact on claims of the creation of an intrinsic motivation as a result of program use.

In addition, future research could facilitate decisions made by schools and administrators regarding program implementation. Considerations of what students will gain in terms of their reading behaviors and achievement and what administrators hope to accomplish by implementing the program can be accurately assessed as the research in this area increases. Schools with readers who are already motivated could experience very limited or possibly no gains in motivation. If the decision is made to purchase AR, program usage and type of implementation may play a key role in the success of the students. Renaissance Learning would advocate the use of the Reading Renaissance model, a school-wide plan that aids in consistent usage of the program and does not advocate the use of external rewards. The school in this particular study allowed individual teachers to use the program as they saw appropriate and used literacy-related incentives in conjunction with AR points. While it would appear that the former would provide the most benefits, once again the question of whether points are viewed as a measure of performance or an extrinsic motivator is raised.

In conjunction with school implementation decisions, the role of the teacher in relation to the program also needs to be examined. If AR is to be a vital component in the curriculum, teachers must be proactive in utilizing information from the program to provide goals, feedback, and encouragement. Students, especially unmotivated readers, may need to develop goals in conjunction with the teacher that focus on improvement and skill development as these may increase engagement and intrinsic motivation (e.g. Harackiewicz & Elliot, 1993). Completing such activities may limit or eradicate the losses in motivation experienced by the low and middle groups in this study.

Although not specifically studied as part of the research question, a comparison of motivation scores was performed to examine if differences existed between the male and female participants in the study. Unlike Vollands et al. (1999), in which females saw gains in attitudes, female participants in the current study exhibited a greater loss in overall motivation, though not

to a statistically significant degree. It should be noted, however, that females still exhibited a higher post-test motivation score. Contradictory results would again indicate the necessity of continued research to examine differing effects on male and female students, especially those male students who struggle to most (see Mallette, et al., 2004).

Conclusion

With the number of children being exposed to computer-based reading programs and the amount of money being spent by school districts on these programs, it is necessary to examine the use of points and their effects on intrinsic motivation to read. The results of the current study continue to raise questions as to whether points should be viewed as a quantitative measure of reading performance or performance contingent reward. Educators and researchers need to critically examine the impact of programs such as AR on future generations' views regarding the importance of reading. It is important that we help students see the goal of reading is not to collect points, but to engage in the activity because of pleasure of the act itself and the inherent benefits it offers.

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TEACHERS RATE TRADE BOOKS FOR BULLYING AND THE BYSTANDER

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Abstract

This study investigated the authenticity of bullying situations portrayed in selected children's literature at both the primary and adolescent levels. Specifically, the books were rated according to how the bullying situations and the bystander behaviors were characterized and represented. Teachers enrolled in graduate literacy courses read and rated the books independently, using a scale developed by the authors. Results were tallied by title to show which behaviors were present in the books. Comparisons between the primary and adolescent books were made, noting the differences in behaviors at each level.

Inherent in the right to an education is the right to be physically, psychologically, and academically safe. Teachers can't teach and students can't learn when they are afraid.

(Fisher, Obidah, Pelton, & Campana, 2005, p. 81)

Introduction

How safe do students and teachers feel in our schools? Do teachers and students learn and work in schools free of crime and violence? Just a quick glance at recent headlines and new articles highlights the violent situations in schools. The Ontario English Catholic Teachers Association 2005 newsletter featured the headline, "Teachers Targeted by Student Bullies." Brown (2005) headlined an article in *The Toronto Star* section, *This Week in Education*

“Raging Parents: The New Schoolyard Bullies.” Similarly, a headline and lead paragraph below were featured in a local newspaper:

New plan to handle problem students

Assistant Principal Jane Roberts (not the actual name) was treated in the hospital after she was injured while intervening in a fight between two male students. A teacher’s aide was also injured in the melee. In separate incidents at another high school, a teacher was shoved as he tried to break up a fight and another teacher was threatened by a student in the school office (“New Plan,” 2005).

What Do We Know about School Violence and Bullying?

In a 2005 the National Center for Education Statistics issued its report, *Indicators of School Crime and Safety*, compiling statistics from the Federal Bureau of Investigation, the Centers for Disease Control and Prevention, the Bureau of Justice Statistics, and national surveys of students, teachers, and principals. The key findings show that crime and violence are not limited to urban schools alone:

- In 2003, students ages 12-18 were almost twice as likely to be victims of theft at school versus away from school.
- Between the years 1999-2003, teachers were victims of 65,000 violent crimes.
- In 1999-2000, 11% of teachers in central city schools and 8% in urban fringe and rural schools were threatened with injury by their students.
- In 2003, 21% of students ages 12-18 reported that street gangs were present in their schools. This is distributed across urban students (31%), suburban students (18%) and rural students (12%).
- In 1999-2000, 43% of middle schools reported daily or weekly bullying, compared with 26% at primary and 25% of secondary schools.

Another source, Fisher, Obidah, Pelton, and Campana (2005) stated that from 1996-2000, teachers were the victims of approximately 1,603,000 non-fatal crimes at school. These authors point out that while the incidences cited above are at the top of a violence continuum, bullying, harassment and putdowns are at the bottom of that continuum. Fisher et al (2005) concluded that bullying behaviors had serious and subtle consequences for all involved—the bully, the victim, and even the bystander. Consequences often included “academic failure, poor self-esteem, anxiety, depression, unhappiness, health problems, and suicide. Bullies are at risk for lifetime anti-social and criminal behavior” (p. 82). Furthermore, bullying and being bullied have also been associated with young people’s smoking and alcohol consumption (Overpeck, Pilla, Ruan, Simons-Morton, & Scheidt, 2001).

School bullying is identified as a national problem in the United States. In 2001, the National Institute of Child Health and Human Development study identified the scope of this problem in grades 6 through 10 in urban, suburban, and rural schools—nearly 1 student in 5 admitted their bullying behavior; some as often as once a week. Students in grades 6 through 8 bullied more frequently than at the other grade levels (Nansel et al., 2001). As members of an international study of conducted by the World Health Organization, Craig and Harel (2004) reported that 35% of the young people were involved in bullying others with the peak in bullying around age 13. While boys bully more students physically (direct bullying), girls typically employ indirect bullying methods such as exclusion from the group (Olweus, 2003). West Virginia, Oregon, Washington, and Louisiana were the first states to pass laws requiring schools to adopt anti-bullying policies in 2001 (U.S. Department of Education, 2006). Thus, legislators are responding to the increasing levels of violence known as bullying.

Olweus' (1993) seminal definition of bullying describes a behavioral interaction rather than merely person or a behavior: "A person is being bullied when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more persons" (p.9). Clearly, if the most serious types of violence, previously described, are to be stemmed, we must *nip them in the bud* at their source— at the bullying stage which can take many forms within the following categories:

- physical bullying such as hitting, pushing, or a direct attack on the victim
- verbal bullying such as threats and intimidation, manipulation, spreading rumors, verbal taunts, name-calling and put downs, and racially or ethnically based verbal abuse, and
- non-verbal such as destroying others' property, taking other peoples' property, seeking revenge, exclusion from the peer group, social isolation and intentional exclusion (Fisher, et al, 2005; Olweus, 1994; Swearer & Doll, 2005).

With a clearer understanding of these criteria, the issue becomes, "Now, what do we do about it?"

Bullying occurs in the classroom and on the playground. Bullying begins in the preschool and continues through the elementary and middle school (Craig, Pepler, & Atlas, 2000). Thus, from an early age students are exposed to emotionally damaging experiences. Adults need to recognize and understand the dynamics of bullying, specifically the bully, victim, and bystander profile. Beyond that, they must be prepared to implement successful intervention techniques.

Over the last decade, a significant number of intervention programs and

strategies have been implemented in the schools to deter bullying. Unfortunately, according to the U.S. Surgeon General's report on youth violence, many of these have been found to be ineffective (U.S. Department of Health and Human Services, 2001). Peer counseling, peer mediation, and non-promotion to succeeding grades were all strategies implemented with large numbers of students that were shown to be ineffective. The report also identified strategies for at-risk students that have yielded few positive effects; these included redirecting youth behavior and shifting peer group norms. Residential programs, behavioral token programs, social casework and individual counseling were among the strategies found to be ineffective with students who had already demonstrated violent behavior. Most of the bully intervention programs focused on the bully and the victim, overlooking the bystander in the situation (Carney & Merrell, 2001).

In contrast, highly successful strategies include cooperative learning, positive youth development programs, social problem solving, teaching thinking skills, social perspective taking and role taking (U.S. Department of Health and Human Services, 2001). Steps to Respect: A Bully Prevention Program (Committee for Children, 2004) uses literature-based lessons to teach students strategies for responding to bullying and addresses the bully, the bullied, and the bystander. The books in this program have proven effective for teaching children about emotions and developing appropriate problem-solving strategies for bullying situations. Independent evaluation of Steps to Respect in grades three through six resulted in fewer bullying incidents as well as bystanders who were less encouraging of bullying (Frey et al., 2005). Other researchers cite the use of children's literature as one intervention that will generalize to the classroom (Carney & Merrell, 2001). It seems that book discussions incorporate most of the other effective strategies. However, a successful bibliotherapeutic approach requires texts with authentic bullying situations to initiate discourse on social justice and empathetic listening. Therefore, we decided to have teachers (graduate students who are practicing teachers) examine incidences of bullying in several current titles in children's and young adult literature.

Rationale and Purpose of the Study

Shea (1998) stated, "The hidden gems of wisdom in children's literature hold the power to shape and inspire our lives at any age" (p.225). As the authors, our collective experiences with children and children's literature have underscored this power. In addition, research has indicated children are able to develop personal connections with the literature and to share their connections with others (Harlin & Dixon-Krauss, 2001). Their perceptions of the world are enhanced through this interaction. This relationship to the litera-

ture has the potential to promote empathy for others, both the others in the literature and those in the world. Louie (2005) wrote, "Empathy development within readers may help them cross the cultural gap to understand the perspectives, actions, and attitudes of the characters they encounter in multicultural literature" (p. 567). We strongly believe that a similar empathetic response to the bully, the bullied, and the bystander can be evoked through the reading, responding, and discussing *exemplary, authentic* children's literature on bullying. Hence, the focus of our study was to identify such literature. Hynds and Applemann (1997) noted that we can move beyond analysis and personal response in children's interactions with texts; we can use literature discussions as a vehicle for social action when readers ". . . discover ways to transform the very society in which they live" (p. 276).

For teachers to successfully use literature as a means for identifying bullying situations and as a springboard to discussion, they need a systematic way to evaluate the books. Teachers ask themselves several questions. These include: (a) Does this book effectively deal with the issue of bullying?, (b) Do the bullying situations portrayed in the book clearly identify the roles of the bully, the bystander, and/or the victim?, (c) How accurately does the book represent bullying dynamics? To address these questions, the authors developed a scale to rate several dimensions of the bullying situation based upon a synthesis of bullying research. Studies of the bully, the victim, and the bystander were reviewed to identify the common characteristics of the individuals as well as the bullying dynamic across age levels (Gamliel, Hoover, Daughtry, & Imbra, 2003; Horowitz et al., 2004; Nishina & Juvonen, 2005; Olweus, 1993; Swearer & Doll, 2001). Then a list of actions was generated for the forms of bullying—physical, verbal, and non-verbal. Finally, types of bystander reactions to the bullying situation were developed. The first section evaluates instances of the three forms of bullying—physical, verbal, and non-verbal. The second section focuses on the bully's characteristics—attitudes, attributes, and background. Dynamics of bully-victim situations such as power, empathy, victims' responses and characteristics comprise the third section. Peer bystanders' roles and responses to bullying are featured in the fourth section. Finally, the book is rated in terms of literary quality, developmental appropriateness, interest level, and potential benefits for group discussions of bullying. In this article findings are reported for two sections of the scale: forms of bullying portrayed in the title and the roles of peer bystanders. (See Appendix for the relevant scale items.)

Method

Like Entenman, Murnen, and Hendricks (2005), our study investigated whether children's literature authentically characterized bullying situations

and bystander behaviors. We initially selected six books from a teacher's bibliography using resources from the Seattle Public Library. Shelly Sandberg (2003) prepared her list by using favorable reviews from librarians and teachers found in the *School Library Journal*, *Library Journal*, and the *Publishers Weekly*. We extended our investigation by selecting recent titles that were highly rated by local librarians and practicing teachers. These additional books allowed us to compare the representation of bullying characteristics at primary and adolescent levels. Finally, our study had teachers (graduate students) evaluate the selections of literature. Forty children's titles were read, discussed, and rated (with partners or by the whole class). Thirteen titles rated by at least 3 teachers are included in this analysis—six primary and seven adolescent books.

Research Questions

We had three distinct and important research questions.

1. Do the bullying situations and bystander behaviors represented in children's literature in ways that align with criteria suggested by research?
2. Are the incidents of bullying in children's books consistently recognized by readers as examples of specific criteria outlined by research findings?
3. Are the forms of bullying represented in books for younger children different from those found in books for young adults?

Setting

This study was conducted in graduate literacy classes at a private college in Western New York. These classes included two sections of a course titled, *Emergent Literacy*, and two sections of a course titled, *Reading in the Secondary School*. Each class was taught by a different instructor. After investigating the prevalence of bullying in schools, the implications of this problem, and research on strategies to ameliorate it, teachers (graduate students) read and rated books using a scale introduced in each class.

Participants

The data represent 27 readers in the Emergent Literacy class and 25 readers in the Secondary Reading classes. The graduate students in these courses were teachers working in either multicultural, multiracial urban schools or in suburban schools with mostly Caucasian children of Irish, Italian, and Polish decent. The majority of the participants were middle class, Caucasian, American or Canadian citizens.

Procedures

In our pilot investigation, we initially sought to determine whether selections of children's literature, suggested as appropriate for discussions of bullying aligned with criteria outlined by research (Bullock, 2002; Craig, Pepler & Atlas, 2000; Gamliel et al., 2003). These criteria include characteristics for overt and covert bullying as well as roles played by the bully, bystander, and victim. However, we determined that it was also important to investigate whether authors of the children's books made the behaviors obvious. We wanted to know if readers consistently recognized and interpreted bullying behaviors embedded in the stories. With the wide range of literature used in the two classes, it was natural to investigate developmental differences in the representation of the problem and outcomes.

Teachers completed a scale after reading each book, checking the form of bullying they recognized in the story. These included physical, verbal, and non-verbal bullying. Readers also checked whether bystander behaviors in each story matched roles identified by research.

Data Analysis

The two sections of the scale on forms of bullying and bystanders corresponding to this study's questions were analyzed. Initially, teachers identified whether the representation of the characteristic criterion was "evident" or "very evident." We collapsed these choices to a "yes" response. Teachers answered "not evident" if they did not recognize the characteristic in the story. The authors tallied each rater's responses to the criteria and combined them for each title. Thus, if there were six raters and two indicated an "evident" or "very evident response" to an item, a 2 was entered for that criterion. Responses from multiple raters were then compiled by the authors to: (a) show whether significant criteria for bullying were represented in books designated as appropriate for that topic, (b) indicate how strongly (or notably) the criteria were consistently recognized in the texts, (c) note differences in the bullying criteria of focus in primary level and adolescent level texts.

Results and Discussion

Forms of Bullying

As shown in Table 1, verbal forms of bullying predominated instances identified in primary level books. In the verbal category, threats and verbal taunts were recognized more frequently than manipulation or spreading rumors. There were not any reported instances of racial/ethnic verbal abuse in the six primary level books reviewed in this study. These findings support research related to the predominant categories of bullying in primary grades (Craig, Pepler, & Atlas, 2000; Woods & Wolke, 2004) and the conclusions reported by Entenman, Murnen and Hendricks (2005).

Table 1. Forms of Bullying Identified in Primary Level Books

FORMS OF BULLYING	BOOK TITLES					
	ARTHUR'S APRIL FOOL N=6*	BOOTSIE BARKER BITES N=5	OLIVER BUTTON IS A SISSY N=4	THE MEANEST THING TO SAY N=4	GOGGLES!	KING OF THE PLAYGROUND N=4
Physical						
• Hitting	2**	5	0	0	4	2
• Direct Attack	1	4	0	0	4	3
Verbal						
• Threats/ Intimidation	6	5	4	2	4	4
• Manipulation	6	4	1	3	2	3
• Spreading Rumors	0	0	3	1	0	0
• Verbal Taunts, Name Calling, Put Downs	6	5	4	4	1	3
• Racial or Ethnic Verbal Abuse	0	0	0	0	0	0
Non-Verbal						
• Destroying Others' Property	3	5	2	0	1	0
• Taking Other Peoples' Property	4	1	3	0	3	1
• Seeking Revenge, Power	3	5	0	2	2	4
• Exclusion from the Peer Group	0	0	3	1	0	3
• Social Isolation and Intentional Exclusion	0	1	2	1	0	4

Note. *N=Number of raters for each title.

**Indicates number of positive responses for each category.

Physical forms (hitting and direct attack) of bullying were less often represented in primary level books. Non-verbal, indirect bullying behaviors (e.g. destroying property, stealing, seeking power or revenge, exclusion, or social isolation) were modestly represented with limited consistency in books at this level. In real life, these forms of bullying are most often seen among older elementary children and adolescents (Gamliel et al., 2003). Thus, the bullying situations reflect current research.

Table 2. Forms of Bullying in Adolescent Books

TYPES OF BYSTANDER BEHAVIORS	BOOK TITLES						
	THE BODY OF CHRISTOPHER CREED N=4*	HOLES N=4	MONSTER N=4	THE BULLY N=4	SAVING JACEY N=3	HIT SQUAD N=3	CRASH N=3
Physical							
• Hitting	3**	1	2	4	3	3	1
• Direct Attack	3	1	2	3	3	3	1
Verbal							
• Threats/Intimidation	4	3	3	4	3	3	3
• Manipulation	3	3	2	4	3	3	3
• Spreading Rumors	3	1	2	1	0	2	0
• Verbal Taunts, Name Calling, Put Downs	4	3	4	3	3	3	3
• Racial or Ethnic Verbal Abuse	0	2	3	0	0	2	2
Non-Verbal							
• Destroying Others' Property	0	1	2	4	2	2	1
• Taking Other People's Property	2	2	2	3	2	3	3
• Seeking Revenge, Power	2	2	0	3	2	3	1
• Exclusion from the Peer Group	3	3	0	3	0	3	1
• Social Isolation and Intentional	4	2	0	4	0	3	1

Note. *N=Number of raters for this title.

**Number of positive responses for this category

Readers of adolescent literature identified bullying behaviors in all three categories (see Table 2.) These included physical (hitting and direct attack), verbal (threats, manipulation, spreading rumors, and taunts), and non-verbal, indirect bullying (destroying property, stealing, seeking power or revenge, exclusion, and social isolation). Researchers noted that bullying behaviors increase at the middle school level; our results parallel those real world findings (Horowitz et al., 2004). Quinn, Barone, Kearns, Stackhouse, and Zimmerman (2003) reported similar elements in their project using novels for bully prevention. It is noted, however, that racial/ethnic verbal abuse was rarely represented in the adolescent level titles reviewed in this study.

Table 3. Roles of Peer Bystanders in Primary Books

TYPES OF BYSTANDER BEHAVIORS	BOOK TITLES					
	ARTHUR'S APRIL FOOL N=6*	BOOTSIE BARKER BITES N=5	OLIVER BUTTON IS A SISSY N=4	THE MEANEST THING TO SAY N=4	GOGGLES!	KING OF THE PLAYGROUND N=4
• Initiate the Bullying Behavior	1**	2	3	1	1	0
• Actively Support the Bully	0	0	2	4	3	0
• Less Actively Support the Bully	1	0	0	3	0	0
• Passively Support the Bully	0	0	2	1	2	1
• Are Disengaged Onlookers	2	0	2	2	0	2
• Show Disdain for the Bully	3	1	4	2	0	1

Note: *N=Number of raters for title

**Number of positive responses for this category

Roles of Peer Bystanders

As shown in Table 3, bystanders in primary level books tended to be characterized as disengaged onlookers who showed disdain for the bully and the bullying behavior. There was a slightly higher rate of agreement among the teachers on this characteristic. One research study of young bystanders (ages 5 to 7 years) found that most children did not think it was their business to help the person being bullied (Slee & Rigby, 1994).

Another study of playground and classroom bullying reported a high percentage of bystanders actively involved in the bullying situation as participants, observers, and interveners (Craig, Pepler, & Atlas, 2000). Thus, the range of bystander behavior in the six titles reviewed parallels the research findings.

Table 4. Roles of Peer Bystanders in Adolescent Books

TYPES OF BYSTANDER BEHAVIORS	BOOK TITLES						
	THE BODY OF CHRISTOPHER CREED N=4*	HOLES N=4	MONSTER N=4	THE BULLY N=4	SAVING JACEY N=3	HIT SQUAD N=3	CRASH N=3
• Initiate the Bullying Behavior	1**	1	1	1	1	0	2
• Actively Support the Bully	1	2	2	3	1	1	2
• Less Actively Support the Bully	1	0	1	3	2	1	1
• Passively Support the Bully	1	2	0	3	1	2	1
• Are Disengaged Onlookers	1	1	0	2	1	1	1
• Show Disdain for the Bully	2	1	0	2	2	2	2

Note: *N = Number of raters for title

**Number of positive responses for this category

Although all the bystander roles were identified in the adolescent level books, there was a limited rate of agreement among readers (see Table 4). It may be that bystander behaviors in books at this level are subtle and difficult for the teacher raters to detect or to interpret.

Comparisons between Primary and Adolescent Titles.

It appears that primary level books focus on verbal forms of bullying behaviors; however, our findings are limited to the six titles analyzed. Books for young readers refrain from presenting more threatening behavior such as hitting or direct attack. Although primary books limitedly included non-verbal, indirect bullying behaviors, these were less frequently identified. It may be that the behaviors in this category would be difficult for young children to recognize. Books for young adults present an array of the bullying behaviors identified by research and actuated in the daily lives of adolescents. As noted, the only behavior that was not identified in the six books reviewed was racial/ethnic verbal abuse. Again, we limit our conclusions to the six titles reviewed.

Teachers' Recognition of Bullying Situations

We also noted several areas of discrepancy in teachers' identification of particular bullying characteristics at both primary and adolescent levels. It would appear that the representation of these characteristics was so subtle that the teacher raters did not recognize the bullying behavior. Unfortunately, these findings parallel real life in schools. In their study of elementary and middle students, Whitney and Smith (1993) reported that 30% of the students were bullied in their classrooms without any form of teacher intervention. Other researchers found that teachers lack understanding of bullying and are more likely to respond to physical bullying than indirect forms of bullying (Craig, Pepler, & Atlas, 2000; Mishna, Scarcello, Pepler, & Wiener, 2005). Limitations in teachers' ability to recognize subtle forms of bullying may indicate a need for deeper exploration of bullying dynamics and consequences.

Implications

The seriousness of bullying in the United States has prompted 22 states to enact legislation. However, the real issue needs to be addressed at the local level—the school and individual classrooms. Teachers are more likely to act when they recognize all forms of bullying and have accurate perceptions of the extent of bullying in their own classrooms (Sterrett & Shifflett, 2005). Thus, it may not be surprising that our teacher raters differed in their detection of bullying in identical titles.

As teacher educators, we also have concerns about our preservice teachers and bullying. Like experienced teachers, preservice teachers have misperceptions about the nature of bullying and varying attitudes toward intervention in bullying situations (Craig, Henderson, & Murphy, 2000). It is our intention to use the scale as a means of engaging our preservice teachers in discussions that explore the nature of bullying and possible intervention strategies for teachers. The titles used in our pilot study have shown us that we may need to guide our preservice and in-service teachers in detecting and identifying dimensions of bullying episodes portrayed. Devoting a portion of several class meetings for bullying discussions underscores our intentions to address this important issue.

The primary and adolescent titles used in this study clearly show the need to read, share, and discuss several books with children. No one book will display the complete range of bullying situations and bystander behaviors without sacrificing literary quality and realistic portrayal of these situations. If it is our intention to promote awareness as well as problem solving with children, then a number of titles should be shared to fully explore these possibilities.

In the future, we will be analyzing the remaining sections of our scale

and reviewing our training. As we expand from this pilot study, we intend to conduct a broader study using more literature selections with multiple responders to assure inter-rater reliability. We will also revise the scale to adjust for items that need greater clarity. Our goal is to refine the instrument and evaluate a range of titles in order to recommend the best children's literature on bullying.

The reported escalation of the bullying problem in schools and communities leads us to believe that ongoing research in effective strategies for ameliorating its consequences is critical. Otherwise, the bottom-to-top continuum of violence will continue to spiral out of control.

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Appendix. Scale of Trade Books Related to Bullying

Name of Rater _____

Title/Author of Book _____

Directions: As you read the book think about rating it in several categories related to bullying, the bully, the bullied, and the bystander. Your response is requested at the completion of the book. Rate your book by checking the appropriate boxes in each category.

FORMS OF BULLYING	VERY EVIDENT 3	SOMEWHAT EVIDENT 2	NOT EVIDENT 1	COMMENT
Physical				
Hitting				
Direct Attack				
Verbal				
Threats/intimidation				
Manipulation				
Spreading rumors				
Verbal taunts, name calling, put downs				
Racial or ethnic verbal abuse				
Non-verbal				
Destroying others' property				
Taking other people's property				
Seeking revenge, power				
Exclusion from the peer group				
Social isolation and intentional exclusion				

Roles For Peer Bystanders To Bullying: The bystanders usually take one of 7 roles. In your book did bystanders fulfill any, some, or all of the following roles?

ROLES	YES 3	NO 2	SOMETIMES 1	COMMENT
Initiate the bullying behavior				
Actively support the bully				
Less actively support the bully				
Passively support the bully				
Are disengaged onlookers				
Show disdain for the bully				

TEACHERS' USE OF TEXT TO DEAL WITH CRISIS EVENTS

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Abstract

Children have witnessed several crisis events during the last five years from 9/11 to Hurricane Katrina. Bibliotherapy, using books about these events, can be useful in helping students cope with their fears and concerns. This article has two objectives. First, to present the results of a survey of how teachers responded to two crisis events by using various texts and discussions with students, and second, to provide an annotated bibliography of books written about crisis events that can be used as a reference for educators.

The last five years have been ones of considerable national turmoil. Children have lived through the devastation of the September 11th attacks (Kleinfield, 2001), the hunt for terrorists in Afghanistan (Schmitt & Gordon, 2001), elevated homeland security threat levels (Shenon, 2002), the war in Iraq (Sanger, 2003), the tsunami disaster (Lichtblau, 2004), and devastating hurricanes (Treaster & Kleinfield, 2005). Not surprisingly, many children feel anxious and afraid, and some have personally experienced the death of a loved one due to these events (Alat, 2002; McMath, 1997). Psychologists have recommended the use of books and other texts for bibliotherapy with students having emotional responses to crisis events. Heath, Sheen, Leavy, Young, and Money (2005) stated that "Children's literature is a therapeutic tool for facilitating growth and healing. Stories provide a catalyst for change, providing children with other perspectives and options for thoughts, feelings and behaviors" (p. 563).

Like all Americans, I was deeply affected by the attacks on September 11th. I was reminded of the helplessness I felt when I was teaching second grade during the Challenger space shuttle disaster (Reinhold, 1986) in which a fellow teacher, Christa McAuliffe, was killed. I wasn't sure what to discuss with my students then and I have since wondered how other teachers have

helped students cope with more recent disasters. To this end, I developed a simple survey (Appendix A) to ascertain how classroom teachers responded to 9-11, the current Iraq War, and the texts and resources that they used for these purposes. The survey results were read and analyzed by me and categorized according to predominate themes. The intent of this project was not to do a scientific analysis that could be generalized and replicated, but rather to provide a means of communication for teachers to describe how they have handled crisis events in the hope that it will give guidance to other educators to help students cope with future events.

This article has two objectives: first, to present the results of a survey of how teachers responded in their classrooms to two crisis events (9-11 and the Iraq War) by using various texts and discussions with students, and second to provide an annotated bibliography of books written about crisis events from 9-11 to Hurricane Katrina that can be used as a reference for educators.

Teacher Survey

I surveyed 134 teachers in graduate education classes about the kind of books and discussions they used after September 11, 2001, and during the current Iraq War. I began by developing sample questions which I asked orally

Table 1: Teachers' Responses Focused on 9-11

Number teaching on 9-11-01 = 120	Middle 4-8 = 58
Primary K-3 = 28	Secondary 9-12 = 34

Topic of discussion held after 9-11: (Top 5)

1. Told not to discuss or no discussion held
2. Open discussion: student initiated, listening to students' concerns and feelings, answering questions
3. School as a safe place, students' safety, students' fears
4. Global politics, motivation for acts, US response
5. Nature of terrorism

Books or texts used after 9-11 (Top 5)

1. newspaper articles
2. online resources
3. adult news magazines (e.g., *Time*, *Newsweek*)
4. kids news magazines (e.g., *Scholastic*, *Time for Kids*)
5. TV news (e.g., CNN, Fox)
6. Others resources: maps & atlases, kids' own writing, videos: Reading Rainbow on 9/11

Specific books listed by teachers:

1. *September 12th*
2. *9-11: A year later*
3. *Leadership* by Rudy Giuliani
4. *Holy War Inc.*
5. *The Pledge of Allegiance*
6. *September 11, 2001: A collection of newspaper front pages*
7. *Time-Life* book about different people, points of view
8. *How Baseball Saved Us* by K. Mochizuki (1983)

in my own graduate classes. From these, I culled the questions that yielded the most information about the teachers' practices and beliefs and arranged them in order from the most specific and closed to the most open-ended to encourage comments. I distributed the survey to practicing teachers attending graduate classes during the summer session. Of the 189 surveys distributed, 134 were completed and useable. Sudman and Bradburn (1982) have found that surveys are an important investigative tool to examine the practices and beliefs of individuals. My hope was that by understanding what other teachers have done, other educators would have insights into helping students to cope with world crisis events. The questions that appeared in the survey are listed in Appendix A. The results of these surveys are summarized in Tables 1 and 2. Table 3 classifies the teachers' comments into themes.

Table 2: Teacher Responses Focused on the Iraq War

Number teaching during current Iraq War:

Primary	=	54
Middle	=	28
Secondary	=	36
Total	=	119

Topic of discussion held (Top 5):

1. Told not to discuss, no discussion
2. Student-initiated discussion, answering student questions
3. Family/friends serving
 - Support for troops
 - What it's like for soldiers
4. Basic information only
 - Separating facts from rumor/misinformation
5. U.S. motivation & beliefs
6. Other topics: student fears, terrorism, patriotism/civic responsibility, technology of war/biologic weapons, preventing prejudice & stereotyping/examining different viewpoints, historical context, map locations, religion/beliefs of Muslims

Books & Text Used:

1. newspaper articles
2. Internet resources
3. adult news magazines
4. kids news magazines
5. world atlases, maps
6. TV news, Channel One for Kids
7. videos: "Discovery Times" interview with Arab teens

Specific Books Listed by Teachers:

1. teacher compiled text set of non-fiction books on various wars
 2. *Faithful Elephants* (WWII)
 3. *The Bracelet* (WWII)
 4. *Pink and Say* (Civil War)
 5. *The Star Spangled Banner*
 6. *The Statue of Liberty*
 7. essay by Jesus Colon (how one event can change your life)
 8. student-created texts on stereotyping/prejudice
-

After 9-11 and the start of the Iraq War, teachers were most likely to be told by administrators not to discuss these events with students; however, in both cases, student-initiated discussions were likely to occur. Clearly, the students felt the need to discuss them. Teachers felt compelled to address the students' questions. As one teacher wrote, "Talk to them and answer their questions! Knowing what's going on makes the event less frightening." Another teacher wrote, "Parents wanted me to censor and ignore the war, but I found my students were hungry to learn about it." Clearly, teachers understood that students needed their help in understanding and coping with these frightening and confusing events. The teachers were asked to comment in the survey about how to help students cope with troubling times. Despite being told not to discuss the events by administrators, the teachers felt the need to hold open and honest discussions with their students. Their responses fell into six general themes. Examples of the teachers' written comments follow.

Table 3: Themes for Helping Students to Cope

Honesty: "Be honest and do not hide information from the students."

Responsive, responsible teaching: "Allow them to discuss in an open environment with some guidelines to prevent inappropriate topics or comments."

"Make teaching decisions with students' best interests in mind."

Allow open discussion, listen: "I let them talk. I am just a mediator if needed."

Involvement:

Nine teachers said that sending items and talking about relatives serving and communicating with soldiers in Iraq were very helpful to their students.

Use of books and writing:

"Children's literature is a wonderful supplement, not as a reaction to an event, but as an overview to provide understanding." Another teacher wrote, "Literature is the bridge to seeing that we aren't the only ones with problems."

Empathy & Understanding:

"Look at the celebrations of the lives of the deceased, help students learn empathy and how to feel for people. Look into fears and identify them."

Using books about worldwide political events does not mean steering students into any particular political beliefs. As one teacher reminds us in anonymous entry in the teacher survey, "Honesty is the most important part. Be careful not to involve political beliefs. Focus on the issue at hand." Perhaps the best use of books during troubled times is as a bridge to communication and empathy. In another anonymous entry, one teacher said it best, "I try to be honest with my kids to build trust. I want them to be able to come to me, to discuss, share books, or just give a hug when they need to."

Books about Crisis Events

Many books have been written for children and young adults that help them to understand and deal with crisis events. The following is an annotated bibliography of books that can serve as a reference to educators who wish to help students understand these events and use them as a way of coping with future disasters. They are organized according to historical and eyewitness accounts of events.

Historical Accounts

Most of the juvenile books written about 9-11 are objective, non-fiction accounts of the events of that tragic day. The authors of these books are more selective in the details and photographs they included as opposed to the more graphic ones in adult books. However, there is still a great deal of variability in the way these events are portrayed. For example, in Santella's (2002) book, *September 11, 2001*, the author uses descriptive, but objective language:

The attacks brought the towers of the World Trade Center crashing down. The plane ripped a huge hole in one side of the Pentagon, setting the building on fire. All the passengers and all the terrorists on each plane were killed, as were thousands of people in and around the World Trade Center. More than one hundred others lost their lives in the Pentagon. The destruction was so great at the World Trade Center that it was difficult to get an accurate count of the dead. After the attacks, officials estimated that 2,983 people had died (p. 9).

Contrast this with the more emotional tone of *September 11, 2001: The Day that Changed America* (Wheeler, 2002) which begins with five double page photographs of the twin towers on fire, people running for their lives and the mass destruction of ground zero. The words "Day of Terror" are written in huge letters. Within the text is an eyewitness account of a ground manager at Logan Airport and his conversation with a flight attendant, Madeline Sweeney, on the doomed Flight 11. It reads, "I see water and buildings.' Then she added, 'Oh, my God! Oh my God!' Suddenly, the phone went dead" (p.16).

Books more geared to younger students such as *America Under Attack* (Marquette, 2003) use a bold font to highlight new or unusual words such as *anthrax*, *Hamas*, *al-Qaeda*, and *jihad*. These words are linked to a glossary in the back of the book. In fact, most of these books provide helpful features such as a timeline, and other resources including web sites. *Understanding September 11th* (Frank, 2002) is written in a helpful question and answer format addressing the kinds of questions that kids most often ask, such as "Why did the terrorists target the United States?" (p.60).

How completely the information about 9-11 is covered depends quite a bit on the copyright of the book. *The Attack on the Pentagon September 11,*

2001 (Gard, 2003), which compares the 2001 attack with the 1993 attack on the World Trade Center, offers this caveat, "As this book went to press, the cleanup in New York and Washington D.C. continued" (p. 5). The author states that "only about 700 bodies had been recovered and identified as of this writing" (p.5). Books published later, while not having the advantage of the immediacy of the events, have, instead, the luxury of perspective that time can bring. For example, in the book *The Terrorist Attacks of September 11, 2001* (Anderson, 2004), there are detailed accounts of the U.S. response to the attacks, including the war in Afghanistan and the hunt for Osama bin Laden. There are also extensive details about the hijackers and the events that we now know led up to the attacks.

Historical accounts of the Iraq War geared to children have recently been printed. ABDO and Daughters has published a whole series of books about the Iraq War. In *Operation Iraqi Freedom* (Rivera, 2004), there is a listing of the "coalition of the willing" countries who sent troops to Iraq, as well as photographs of Jessica Lynch, the soldier who was captured and later rescued by American forces. The tone of the book is somewhat optimistic. It ends with the phrase, "With the help of aid organizations and coalition nations, the United States hoped to rebuild Iraq and help Iraqi people form a new government that would work for them" (p. 41). This is followed by a photo of an American soldier holding a gun and accompanied by two smiling and waving Iraqi children. In contrast, *Iraq and the Fall of Saddam Hussein* (Richie, 2003), features photos of dead Kurdish children killed by nerve gas by Hussein, and photos of a disheveled Saddam Hussein after his capture. The tone of this book may be described as realistic as demonstrated in the following passage:

The war in Iraq did not end with the fall of Baghdad in April, however, nor with the capture of Saddam Hussein eight months later . . . All the groups [Iraqi ethnic groups] want some power, some want all. They will battle for Iraq in the years to come (p. 5).

Obviously, there is a lag time between world events and books about them. The teachers surveyed were proven to be quite resourceful in the texts they used with students. Many used the immediate resources of newspapers, magazines, maps, and on-line sources. Others related the themes of books from other historical periods such as *How Baseball Saved Us* (Mochizuki, 1983), *Faithful Elephants* (Tsuchiya, 1988), *The Bracelet* (Uchida, 1993) from World War II or *Pink and Say* (Polacco, 1994), using the theme of friendship during the time of the Civil War. Some teachers focused on specific issues such as avoiding stereotypes and prejudice and used texts and student writing to examine this in light of world events. One teacher, who had her students make books about avoiding stereotyping, commented, "I feel that students were able to express their feelings by writing about it."

Eyewitness Accounts

Eyewitness accounts of crisis events are often too intense for children. All of the 9-11 books that I examined that were written from the point of view of survivors of the attacks had too many horrific details to be appropriate for elementary age children. These might be used with caution with older students. However, one eyewitness book about the Iraq War could be considered a juvenile book. It is *Thura's Diary* (Al-Windawi, 2004), written by an Iraq high school girl who experienced the fall of Baghdad from her window. She vividly expresses her mixed feelings towards the Americans, Saddam, and her countrymen.

Killing: American, Iraqi and British. Men, women and children, everyone has his or her problems: food, water, safety, sleep and medicine. Everybody is tired. The question is always: *When will this war end?* And I ask myself: *What will happen next?* (p. 70)

Fortunately, the book has a happy ending. After reading of her story, Thura was offered a scholarship at the University of Pennsylvania where she is now studying.

Non-fiction juvenile books that have historical accounts of terrible events such as 9-11 and the Iraq War are most helpful in helping students to separate the facts from the opinions about these events. Children need to know these basic facts about global events in order to be informed citizens.

Books with Topics Related to 9-11

Several children's books about September 11 do not confront the topic directly, but rather focus on related stories such as the firefighters and rescue dogs who were on the scene. Scholastic released several books, aimed at children too young to understand the historical events of 9-11, about community helpers such as firefighters, policemen, and paramedics (Kottke, 2000). Teachers can use these books to communicate to kids that these people are heroes, and that anyone who helps other people, including kids, can be heroes too.

Heroes and Helpers

Other books describe the actions of non-humans that helped with the aftermath of the World Trade Center attacks. In *Hero Dogs: Courageous Canines in Action* (Jackson, 2003), children can read the inspiring stories of Roselle, a guide dog who led her blind owner safely down from the 78th floor of the World Trade Center, and Servus, one of the specially trained search dogs, who was injured while searching through a pile of rubble at Ground Zero. They can also learn about the Animal MASH that was set up there, and the psychological and physical effects on the dogs. Teachers and parents should be warned, however, that a story about a bomb-sniffing dog that died

in the collapse of the towers is also included, and may be quite upsetting. *Fireboat: The Heroic Adventures of the John J. Harvey* (Kalman, 2002) is the wonderful, true story of an old New York fireboat that had been reconditioned just in time to be called into service to put out the fires around the World Trade Center. The book ends with these words of hope, “Now the Twin Towers are gone. Something new will be built. The heroes who died will be remembered forever. The Harvey is back to being a very happy boat. NOT scrapped. NOT useless. NOT forgotten” (unpaged).

Patriotic Books

After both 9-11 and during the Iraq War, many patriotic books were released that reflected the nationwide feelings of coming together as a country. *America: A Patriotic Primer* (2002), written by Vice-President Dick Cheney’s wife Lynne, is an alphabet book of past and present events, people, and values that characterize America. The influence of 9-11 is evident on the page for H and I where H stands for *Heroes* and I stands for *Ideals*. Pictures of firefighters, policemen, and the U.S. military are portrayed as examples. Another trend in patriotic books is to use the text from historical documents and illustrate them in kid-friendly ways. *We the Kids* (Catrow, 2002) is the preamble of the Constitution, but Catrow illustrates it as a family going on a camping trip to help explain phrases like “insure domestic tranquility.” In *America the Beautiful* (Bates, 2004), the influence of 9-11 is more obvious. One of the verses of the song, “Who more than self their country loved. And mercy more than life,” is illustrated with the now iconic image of the New York firefighters raising an American flag over a rubble pile at Ground Zero.

Fiction

Almost no fictional books for kids have been written after 9-11 or the Iraq War. Publishers and authors probably do not want to be accused of exploiting these events. It will be interesting to see if some historical fiction emerges in the years to come. There is, however, one juvenile fiction book written after 9-11. In *Frankie Wonders . . . What Happened Today?* (Conte, 2001), a young boy notices the change in routine of his family life and demands to know why. Finally, his father explains about the attacks and adds that “Some very bad people did this on purpose. They wanted to do something bad to Americans” (unpaged). Despite the rather distracting cartoon illustrations, the book serves as a model of the kind of question and answer exchanges that must have taken place in millions of American homes in 2001, and in that respect, could be very reassuring to kids to know that many have the same concerns as Frankie.

These books that are related to crisis events are especially useful to use with young children, or any children that may be too sensitive or trauma-

tized to deal with the event directly. They tend to emphasize the heroic efforts of people and others and give kids a real sense that they can make a difference and make the world a better place.

Terrorism

Many children, especially older ones, want to understand the nature of terrorism. There are a small number of juvenile informational books on terrorism. *Terrorists and Terrorist Groups* (Currie, 2002) takes a more worldwide view of terrorism and includes chapters on Hamas, The Irish Republican Army, Oklahoma bomber Timothy McVeigh, as well as Osama bin Laden and al-Qaeda. The book cites this definition of terrorism: “premeditated, politically motivated violence aimed at civilians,” but then goes on to question this definition, stating that “one man’s terrorist is another’s freedom fighter” (p. 9). In the book, *Jihad: Islamic Fundamentalist Terrorism* (Katz, 2004), the author is careful to separate terrorism evolving from Islamic extremists from the Islamic religion. It states, “Those who have committed acts of terrorism in the name of Islam have given it an unjust reputation as a religion of violence and hatred” (p. 10). Rather than portraying terrorist acts as random acts of violence, some of these books attempt to explain why terrorists target Americans, citing such things as our support of Israel, the oppression of Palestinian people and battles over oil.

The Terrorist, by Caroline Cooney (1997) is a fictional juvenile novel about a teenage girl, Laura, whose brother is killed in London by a terrorist bombing. She is determined to find the killer, and becomes suspicious and angry at everyone around her, including her innocent friend, Mohammed. The ending is somewhat unresolved with no one brought to justice, and Laura denouncing, “every senseless act of violence the world over” (p.198). These books help answer students’ questions about why anyone would seek to harm us. It may be helpful for them to realize that most of the terrorists hate American foreign policy rather than Americans themselves. However, teachers still need to exercise judgment when using these books since they may prove to be more disturbing than enlightening.

Children’s Art and Responses

Perhaps the most helpful books are the ones that use children’s own responses to tragic events. *September 12th: We Knew Everything Would Be All Right* written and illustrated by first grade students at Materson Elementary School (2002) in Kennett, Missouri, is a comforting book that assures children that on the day after a terrible event, things can get back to normal and they will still be “tucked in our warm, safe beds” (p. 24). This book was the one most often cited in my teacher survey, and probably the best known of the 9-11 books for kids.

The Day Our World Changed: Children's Art of 9-11 (Goodman, 2002) has an opposite point of view, but just as poignant a message. The book was created from a juried art exhibit of New York City children's artwork. The book is divided into themes ranging from "The Attack," "The City Mourns," "Heroes and Helpers," to "Hope and Renewal." The artwork is stunning. An eight-year old boy uses paper collage to show a jet breaking up the World Trade Center; a seventeen-year old girl depicts Osama bin Ladin as a giant monster eating the towers; a ten-year old paints a colorful watercolor of firemen putting out a raging fire at Ground Zero. Unforgettable images, such as the candles lit for the missing are reinterpreted by these young artists. Perhaps the artwork that best captures the spirit of New York children is the one of a very fashionable young lady wearing an "I love NY" t-shirt. Her dog is thinking "More than ever!"

Counseling

While some books are meant to provide information in order to help kids understand troubling world events, other books are specifically aimed at alleviating kids' fears and anxieties. *Live Aware, Not in Fear: The 411 After 9-11* (Wells & Morris, 2002), is one such book, written in a question and answer format by two public safety experts, addressing such fears as the belief that "there are terrorists everywhere" (p.8). The authors also provide spaces for kids to write in their responses to such questions as, "In what ways has your day-to-day routine changed since September 11, 2001? How do you think it will continue to change?" (p. 17).

This Place I Know: Poems of Comfort (Heard, 2002), counsels children in a different way. Georgia Heard selected 18 poems to read to New York City children who had witnessed firsthand the attack on the World Trade Center from their classroom windows. She writes, "I tried to choose poems that touch upon our feelings of fear and loss, remind us that we are not alone in despair, and assure us that dreams can be born even from tragedy" (p. 7). Each poem is beautifully illustrated by an award-winning artist. One of my favorites, which seems to capture the essence of counseling is *Trouble Fly* by Susan Marie Swanson. It reads in part:

Trouble, fly
out of our house.
We left the window
open for you (p. 18).

Children who have experienced traumatic events need counseling to help them cope. Books such as these can be a source of comfort and a way to start a dialogue about children's fears and concerns.

Background Information

It can often be helpful to understand background information surrounding an event in order to have a clearer understanding of that event. *World Trade Center: Tribute and Remembrance* (Highsmith, 2001) has lovely color photographs of the World Trade Center under construction, and in its glory as the tallest building in New York and a symbol of world commerce.

In order to help children understand the Iraq War, it is beneficial for them to have a basic knowledge of the religious and cultural traditions of Iraq. *What Do We Know About Islam?* (Husai, 1995) is a very useful book for this purpose. In it are many colorful maps, photos, and other graphics explaining the Muslim people and their Islamic religion. The beliefs and religious practices of Muslims are explained in respectful ways that children can understand. Other aspects of the Muslim tradition such as special foods, art and storytelling are also explored. *Cultures of the World: Iraq* (Hassig, 2003) is also an excellent book for explaining the history, religion, culture and everyday life of Muslims in Iraq. Things that children are often curious about, like the traditional women's dress (the abaaya), the mass prayers, and the different hand gestures are explained in kid-friendly ways.

It is also extremely helpful for students to know about the leaders during times of national crisis. A recent juvenile biography of George W. Bush (Burke, 2003) traces the President from birth to commander-in-chief of the Iraq War. There are very helpful "source documents" throughout the book, including an excerpt from his speech to the nation on September 11, 2001.

There are also juvenile biographies on the opposition leaders. *Saddam Hussein* (Anderson, 2004) provides excellent background information about the Iraqi leader who seized power in 1968 and ruled Iraq with a bloody hand. Unfortunately, the book ends before the invasion of Iraq and the downfall of Hussein. In fact, it ends with this now historically inaccurate sentence, "For a number of reasons then it is likely that President Bush would exhaust all other options before deciding on an invasion of Saddam Hussein's Iraq" (p. 95). Likewise, the book *Osama bin Laden* (Woolf, 2004), while providing a fascinating account of the man from a wealthy Saudi family who became the instigator of the 9-11 attacks and the most wanted terrorist on earth, cannot provide a definitive ending since bin Laden has so far (as of this writing) evaded capture.

Books with Related Topics

There are some recently published children's books that, even though they don't confront the topic directly, have been clearly influenced by 9-11. One such book is *New York's Bravest* (Osborne, 2002). It is the tradition of a tall tale about a legendary firefighter named Mose Humphreys who was known

for his bravery in the 1840s. The connection with 9-11 comes in the dedication which reads, "To the memory of the 343 New York City firefighters who gave their lives to save others on September 11, 2001."

The most celebrated of these books is the 2004 Caldecott winner, *The Man Who Walked Between the Towers* (Gerstein, 2003). It is the story of daredevil tight-rope walker, Phillipe Petit who secretly walked between the towers in 1974. It ends poignantly with these words, "Now the towers are gone. But in memory, as if imprinted on the sky, the towers are still there" (unpagged).

Books about Natural Disasters

More recently, we have all witnessed the horrific after-effects of tsunamis and hurricanes. Books about the Indian Ocean tsunami have recently been published. *Tsunami Disaster in Indonesia* (Torres, 2005a) is written for students in grades 1-2, and *Disaster in the Indian Ocean* (Torres, 2005b) is appropriate for grades 4-6. Lucent Books has published *Catastrophe in Southern Asia: The Tsunami of 2004* (Stewart, 2005). There are also books available to help students understand the nature of these natural disasters. *Tsunami: Monster Waves* (Wade, 2002) published by Random House, focuses on the tsunami in 1946 that hit Hawaii and provides excellent background knowledge about tsunamis. For younger children, *Hide Tide in Hawaii* (Osborne, 2003) is one of the Magic Tree House Book series. It provides a fictional account of Jack and Annie's adventures in Hawaii and how they help islanders recover from a tsunami. However, in light of recent events, this book could come across as trivializing a tragedy.

I was able to locate only one juvenile book so far on Hurricane Katrina. *Hurricane Katrina Strikes the Gulf Coast* (Miller, 2006) is appropriate for older elementary aged students. It provides an excellent explanation of hurricane strength and its aftermath through the use of photographs, graphs, maps and other visual aids. There are some explicit quotes from eyewitnesses such as this survivor: "I saw three dead people floating near Clairborne Street" (p.24). But there is also a tone of optimism such as this quote from a police officer: "I saw terrible things. Just terrible things. But I also saw people sharing what little food they had. There was bravery and kindness" (p. 39).

Implications

Publishers are beginning to meet the demand expressed by teachers in my survey for age-appropriate books about crisis events to use with children. Sadly, more crisis events will occur in the future. Educators will find themselves in the role of being a source of objective information as well as a dispenser of comfort and support. Books and other texts can help teachers fulfill both roles while still maintaining their professional status. It remains

the responsibility of teachers to decide which texts are appropriate for their students and what level of openness to negotiate with administrators and parents. Children's literature experts Lee Galda and Bernice Cullinan (2006) have written that "Children have a desire to *know*, and when they discover that books are a place to find answers, they embark on a journey of lifelong learning. They turn to nonfiction literature to feed their hunger for facts, ideas and concepts" (p. 261). No doubt, teachers will find ways to use books effectively in the classroom to help students satisfy this hunger for information and need for reassurance.

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Appendix A. Teacher Survey of Terrorism and Books

1. Were you teaching on September 11, 2001? Yes No
What grade level/subject?
 2. What kind of discussion did you have with your class about 9-11, terrorism, or a related topic?
 3. What books or texts did you find helpful?
 4. What grade level/subject were you teaching during the current Iraq War?
 5. What kind of discussion did you have with your class(es) about the war, terrorism or related topics?
 6. What books or other texts did you find helpful?
 7. Any other comments about helping students cope with troubled times:
-

CLASSROOM
LITERACY

AN INVESTIGATION OF THE KNOWLEDGE BASE AND USE OF CONTENT INSTRUCTIONAL STRATEGIES IN PRIMARY GRADES BY ELEMENTARY PRESERVICE TEACHERS

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Abstract

The purpose of this pilot study was to investigate preservice teachers' self-reported knowledge and use of content instructional strategies while teaching in primary classrooms in Texas. This research study describes 33 subjects' responses regarding (a) awareness of content instructional strategies, (b) use of the content instructional strategies they identified, and (c) the strategies they thought were the most useful. It appears that these preservice teachers were familiar with a wide variety of strategies. Of the 40 instructional strategies listed by the preservice teachers, however, only nine different strategies were used by five or more preservice teachers in their classroom teaching.

In the past, as children began their schooling in the primary grades, the focus of reading instruction was on learning how to read. After two or three years this "learning to read" phase was followed with instruction on using reading skills to learn content or information from text. Unfortunately, many people assumed that by reading words correctly comprehension would "just happen" or that comprehension was related to intelligence (Allington, 2006).

Unfortunately, many students who are able to read fluently are incapable

of comprehension (Block & Pressley, 2002). More recently comprehensive reviews of research provide strong evidence that reading comprehension can be improved significantly with effective teaching (Almasi, Garas, & Shanahan, 2005; Dole, Brown, & Trathen, 1996; Guthrie, 2004; Kamil, 2004; Mastroieri & Scruggs, 1997; Pearson & Fielding, 1991; Pressley, 2002; Rosenshine & Meister, 1994). Thus, teachers should move away from activities that focus on simplistic recall of information and assessment to providing instruction that focuses on comprehension strategy development. Specifically research-based strategies such as activating prior knowledge, paraphrasing, imagery, and question generation should be taught in an integrated fashion (Allington, 2006; Almasi, Garas, & Shanahan, 2005). And, content instructional strategies related to metacognitive awareness should be part of an early elementary curriculum (Baker, 2005; Griffith & Ruan, 2005; Morrow, Tracey, Woo, & Pressley, 1999; Palincsar & Duke, 2004; Samuels, Ediger, Willcutt, & Palumbo, 2005)

This suggestion is particularly important because in recent times there has been an increase in informational or expository text for readers in the primary grades. For example, in the last 15 years the publication of informational trade books (books written for children that are available for purchase by the public) has increased tenfold (Lynch-Brown & Tomlinson, 1998; Rice, 2002, Walpole, 1998). In fact, Moss (2003, 2004) advocates teaching reading and text structures through the use of informational trade books. Thus, expository text for readers in the primary grades is now more widely available than in any other time in history, yet concern with content reading instruction and the use of content strategies has traditionally targeted middle and high school students (Alvermann & Moore, 1996; Bean, 2000; Massey & Heafner, 2004; Rasinski & Padak, 2005).

Learning in content-area subjects requires reading and writing skills for both the understanding of information and the ability to communicate that understanding (Eanes, 1997; Jacobsen, 1998; Sturtevant & Linek, 2004). According to the Texas Education Agency (2002), primary teachers need skills to help students learn to read expository texts. The teacher's knowledge must include:

- understanding various expository structures;
- knowing how to develop content area vocabulary;
- knowing how to promote word identification skills;
- knowing how to help students building reading fluency; and
- knowing when and where to use a variety of comprehension strategies.

Thus, knowing and using teaching strategies that facilitate learning how to read content area textbooks and understanding informational text are critical for preservice teachers.

According to the National Reading Panel (NICHHD, 2000), teaching chil-

dren how to use the strategies needed for comprehension of various texts being read is very complex. The panel advocated that preparing preservice teachers for reading instruction must include, not only a good understanding of the content, but also a working knowledge of a variety of reading strategies. Thus, not only strategies that aid vocabulary growth and word identification need to be taught, but also various types of semantic webbing and reorganization of ideas strategies that can be used to ensure comprehension of concepts being learned and content being taught should be a focus of the preservice teacher curriculum.

These strategies are important because schema needed for reading informational text is different from that needed to read narrative text (Goldman & Rakestraw, 2000). The purpose for structuring successful reading of expository textual content is so that conceptual understanding and remembering can take place. Typically, expository text does not bring about the emotional response that narrative text easily invokes, so the connection between reader and text is not as strong unless there is a specific interest or motivation to learn something. Thus, in order for students to achieve understanding while reading, they must strategically interact with the text being read (Cummins, Steward, & Block, 2005).

Educators believe that the most effective learning occurs by actively involving students in the learning process. Helping learners gain control over their own learning by asking their own questions and finding their own solutions is valuable (Allington, 2006). To gain this independence, readers need strategies to help them to become metacognitive during their reading (Paris, Wasik, & Turner, 1996). When faced with difficult texts, readers need to know which strategies to use in order to comprehend the content material being read and the concepts being learned. And, if students are not guided in this reading, they are delayed in increasing their content knowledge. Therefore, today, when no child is to be left behind, every primary teacher has a responsibility to help students successfully access, read, and understand content material. The use of instructional strategies is essential in this process as research has shown that when students are given instruction in strategies they make significant gains on measures of reading comprehension (Allington, 2006).

Reading strategies draw on the different approaches that good readers use to read actual text in their classrooms. These comprehension strategies, which follow the basic comprehension three-part instructional model: before reading, during reading and after reading, can be used to understand content material (Brozo & Simpson, 2003; Manzo, Manzo, & Thomas, 2005; Vacca & Vacca, 2002). Reading professionals have recognized that content reading must be taught by subject-area teachers who are knowledgeable not only about their content, but also about reading and literacy. Likewise, it is now being espoused that primary teachers who have always needed to fo-

cus on helping their young students learn to read, now need to be proficient in various instructional strategies for the reading of content text (Draper, Smith, Hall, & Siebert, 2005). The old adage of learning to read followed later by reading to learn is being compressed so that emerging readers are taught to employ reading as a learning tool as they are also learning to read.

Thus, preservice teachers need to have an understanding of a variety of strategies that will not only help all students become engaged in the learning process, but also prepare them to become independent readers (Vacca & Vacca, 2002; Brozo & Simpson, 2003; Bean 2000; Manzo et al., 2005). Since children learn in a variety of ways they need to be taught how to use a variety of strategies that can be applied to content-area text, enabling them to understand the information being read (Daniels & Bizar, 2005). By using these strategies during instructional time, teachers can give students the tools that are needed for them to have a lifetime of successful learning.

An extensive literature search on the use of instructional strategies while teaching content material was conducted by Howe, Grierson, and Richmond (1997). They discovered that the majority of the studies focused on the use of content instructional strategies by teachers were conducted in the middle and high school settings. Their research also showed that content area reading instruction, which is part of the elementary curriculum, was identified as being difficult for elementary grade teachers. Thus, primary grade teacher preparation programs need to be examined to describe the impact of the inclusion of content instructional reading strategies on preservice teacher knowledge, use, and perceptions of strategies that can be used when teaching with expository as well as narrative text.

Therefore, the Howe et al. (1997) work was used as a starting point for designing a study to collect data on content instructional strategies for Early Childhood to Grade 4 preservice teachers in a field based program. Specifically, the first goal of this study was to survey a selected group of preservice primary teachers in a field based teacher education program to investigate the instructional strategies that they remembered from their previous methods courses. A second goal was to ascertain the actual use of those strategies in their classroom teaching experiences during internship. The final goal was to determine which strategies these preservice teachers perceived to be the most useful when helping children learn. The three specific research questions addressed were:

1. What strategies are EC-4 interns initially familiar with?
2. What strategies do EC-4 interns incorporate into their instruction during a field based preservice teacher-education program?
3. Upon reflection which strategies did EC-4 residents (former interns) believe to be the most useful?

Method

Participants

The participants were thirty-three preservice teachers pursuing Early Childhood through Grade 4 (EC-4) certification, in their last two semesters of a year-long field-based teacher education program. This year-long program comprises the senior year at a four-year state university in Texas. In the first semester of this field-based program the preservice teachers (interns) are in various public school classrooms with two classroom mentor teachers (1 early childhood, 1 primary grade) two days a week and are visited weekly in the field by one of the university instructors who teach in their field based center. These interns also have a daylong seminar with their university instructors one day per week. At the successful completion of their internship semester, these preservice teachers become residents for the second semester of the program and are in the same two classrooms five days a week with eight daylong seminars with university instructors spaced throughout the semester. Weekly visits by the university professors continue the second semester.

Prior to their yearlong field-based experience, preservice teachers take three reading courses. *Reading and Literacy I* introduces the theoretical foundations of reading and literacy (TAMU-C, 2005). Preservice teachers explore how reading, literacy, and cognitive processes are developed. An emphasis on teaching approaches, text genre, writing, listening, speaking, linguistics, cueing systems, phonemic awareness, phonics, word recognition, spelling, and professional resources are included. Fifteen hours of observation provide time for seeing how teachers connect theory and practice with children.

The second course, *Word Analysis Skills*, explores word identification within the context of language (TAMU-C, 2005). Emphasis is placed on how to implement state standards when facilitating children's development of the phonological system through writing. Special attention is given to strategies/activities that are useful to readers in the areas of word knowledge and word analysis.

The third course, *Reading and Literacy II*, examines how to integrate school reading and writing instruction (TAMU-C, 2005). Emphasis is placed on how state standards can be integrated with basal readers, tradebooks, literature, cognition, reading comprehension, comprehension strategies, informal assessment, and formal assessments.

During the first semester under study, the fourth course *Content Reading Methods for Teacher Candidate in Field-Based Settings* was taken (TAMU-C, 2005). Prospective teachers acquire knowledge, skill, and ability to teach K-8 learners to interact with and use both teacher-directed and reader-based strategies to comprehend expository text. Emphasis is on developing effective instructional strategies through the integration of teaching and technology.

Researchers and Context of the Study

Two of the researchers were instructors of the reading course taken during the internship semester. These two researchers also served as instructors in two of the reading courses prior to internship. Three of the researchers had no contact with the preservice teachers. One external researcher was a doctoral student serving as a research assistant. The other two researchers were doctoral faculty members. The three external researchers corroborated and verified the analyses.

Interns were from two different field-based centers. The first center was located in a small city of approximately 30,000 people with a median household income under \$35,000. The school district had an approximate enrollment of 5,300 students in 12 schools (48% White, 27% Hispanic, 24% Black, 1% Other, and 53% economically disadvantaged). Preservice teachers in this center were placed in 1 early-childhood learning center and five K-4 schools with an overall enrollment of 2,200 students.

The second center was located in a smaller city of approximately 22,000 people with a median household income just over \$30,000. The school district had an overall enrollment of 4,000 students in 8 schools (69% White, 17% Hispanic, 13% Black, 1% Other, and 48% economically disadvantaged). Preservice teachers in this center were placed in 1 early childhood learning center and four Grades 1-4 schools with an overall enrollment of 1,800 students.

Procedures

Since the researchers were trying to replicate the Howe et al. (1997) study, interns were engaged in several processes to activate prior knowledge and collect data at the beginning of the first semester. First, interns were put into small groups and asked to brainstorm 10 strategies that they either believed they knew about, had used, or remembered learning about from previous university coursework. During whole-group discussion, these strategies were collaboratively compiled into one list at each center. To further activate prior knowledge, each intern was then given the Howe, Grierson, and Richmond article and a list of the 44 strategies discussed in the article. Interns read the article and indicated familiarity with a “yes” or “no” response to each item on the list. They discussed the article and their familiarity with the strategies on the list in small groups.

Interns were then given a lesson strategy log and instructed to make an entry in the log every time they taught in the classroom and to decide whether or not they had used a strategy. The log was divided into two columns. The first column asked for the date they taught and the content being taught. The second column asked if they had taught using a strategy and if so to identify the strategy that was used while teaching. They recorded their teaching and instructional strategy usage for 12 weeks. These logs were collected near the end of the intern semester.

During the sixth week of the following semester these same preservice teachers, now residents, were once again placed in small groups. They were asked to brainstorm and write down the fifteen instructional strategies that they remembered as being the most useful while teaching in the classroom. During whole-group discussion, these strategies were collaboratively compiled into one list at each center. These final data were purposefully collected during the second semester. This timing allowed for a broader reflective response because as residents they were now in the public schools more frequently and assuming greater teaching responsibilities.

Data Analyses

The initial brainstormed lists from the two centers were collaboratively coded and combined into one list of strategies using constant comparison (Glaser, 1994) by the two researchers who were teaching the preservice teachers and collecting the data. An external researcher then coded the initial lists using the codes from the combined lists to verify that all strategies were included. Discrepancies were discussed until consensus was reached. The final brainstormed lists were analyzed using the same process.

The self-reported lesson strategy logs were collected at the end of the intern semester and analyzed to determine which strategies were used. Using recursive analyses similar to constant comparison (Glaser, 1994), two of the researchers collaboratively read and coded all of the data reported by the students in their logs. Disagreements on how specific strategies were to be coded were discussed until consensus was reached. Using the codes developed by these two researchers, one external researcher independently reread and coded all the data. The three researchers then met and discussed any discrepancies in the coding until consensus was reached. Frequency counts by *preservice teacher* and *use* were then tabulated.

Results

Responses from a total of thirty-three participants were analyzed and reported below. To answer research Question 1, *What strategies are EC-4 interns initially familiar with?*, the first brainstorming list was examined to determine EC-4 interns' self reporting of awareness of content area strategies. The frequency count analysis of the small groups' strategies lists yielded awareness of fifteen instructional strategies that they had listed as believing they knew, had used, and/or remembered from previous university coursework and current field experiences. All three groups of interns listed KWL, Think-Pair-Share, Flip Charts/Books, and Semantic Webbing. The semantic webbing strategies were sometimes given names that they were called in their observation classrooms and are not individually listed. Two of the

three groups listed Choral Reading and Venn Diagrams. The remaining instructional strategies were listed by one of the groups: Paired Reading, Reader's Theater, Word Wall, Word Sorts, Read Aloud, Before-During-After, Story Map, Brainstorming, and Directed Reading-Thinking Activity (DR-TA).

To answer research Question 2, *What strategies do EC-4 interns incorporate into their instruction during a field based preservice teacher educa-*

Table 1. Instructional Strategies Identified and Used by Preservice Teachers

NUMBER OF PRESERVICE TEACHERS WHO USED THE STRATEGIES	INSTRUCTIONAL STRATEGY USED	NUMBER OF TIMES STRATEGY WAS USED
14 interns	KWL	25
12 interns	Using Manipulatives	18
8 interns	Phonics	14
6 interns	Word Sorts	13
6 interns	Graphic Organizers	7
5 interns	Activating Prior Knowledge	11
5 interns	Brainstorming	6
5 interns	Read Aloud with Questions	6
5 interns	Predicting	5
4 interns	Choral Reading	17
4 interns	Question Techniques	8
4 interns	Journal Writing	5
4 interns	Drawing Pictures/Illustration	4
3 interns	Reading Aloud	10
3 interns	DL-TA (Directed Listening Thinking Activity)	6
3 interns	DR-TA	4
3 interns	Guided Reading	3
3 interns	Listening Comprehension	3
3 interns	Computer Games	3
3 interns	Graphs & Charts	3
2 interns	Test Strategies	5
2 interns	Storytelling	2
2 interns	Venn Diagram	2
2 interns	Scaffolding	2
1 intern	Math Sorting	3
1 intern	Picture Walk	2
1 intern		
(These are grouped together because they were used once and each by a different interns.)	Context Clues, Echo Reading, Flip Chart, Forum Discussion, Grab Bag, List-Group-Label, Magic Boards, Reader's Theater, Semantic Web, Sequencing, Story Pyramid, Summarizing, Think Aloud, and QAR (Question Answer Relationships)	1

tion program?, the lesson strategy logs were analyzed to find out which instructional strategies interns incorporated into their instruction. By tallying the various instructional strategies that were listed on the thirty-three completed lesson logs, it was found that forty strategies were listed as being used (see Table 1). These strategies were then ranked according to the number of preservice teachers who reported using the strategy during instruction for twelve weeks in their field based classrooms. The forty instructional strategies that were listed as purposefully used during actual instruction had a range of usage from one to fourteen different preservice teachers. The KWL was used by the highest number of preservice teachers and was also used most frequently. The results are in order of strategy usage from most to least number of preservice teachers who said they used the strategy.

To answer research Question 3, *Upon reflection which strategies did EC-4 residents (former interns) believe to be the most useful?*, a final brainstorming list was collected approximately 6 weeks into the (former) interns' resident semester. Small groups of residents were asked to list the fifteen instructional strategies that they now believed or considered to be the most useful from their prior semester and the first few weeks of their current semester of teaching. This list, which was compiled from collective reflective brainstorming, included the following 15 instructional strategies: webbing, KWL, DL-TA, DR-TA, choral reading, echo reading, popcorn reading, sketch-to-stretch, Venn diagram, prediction chart, sequence cards, word sorts, author's chair, word building, and picture walk.

Discussion

This study set out to examine EC-4 preservice teachers' knowledge about instructional strategies and the implementation of these strategies while they were teaching in primary grade classrooms during their internship. The preservice teachers kept a log throughout the semester that indicated the strategies they used while they were teaching in the classroom. These self-reported data were supposed to help us determine which strategies they liked the best and which strategies they actually implemented in the classroom. However, in the process of analysis, our excitement about what we would find turned to frustration as reading the logs and categorizing the strategies preservice teachers had listed became difficult due to several reasons. First, the preservice teachers listed numerous strategies but, for the most part, they did not label them using the list of 44 strategies from the article (the study we were replicating). Second, it appeared that they listed parts of known strategies such as *brainstorming* numerous times. We deduced *brainstorming* was sometimes part of another strategy such as KWL. Confusing the analysis further was the fact that the Howe et al. (1997) list of strategies called *brainstorm-*

ing, prior knowledge. These limitations, as well as the limitation of self-reported data, should be kept in mind as results and implications are discussed.

The results indicate that these thirty-three preservice teachers were familiar with a variety of content area instructional strategies. These were the strategies that they had been introduced to in reading methods courses and strategies that they observed in their particular field-based placements in public school classrooms. However, while a large number of instructional strategies are introduced, modeled and or demonstrated with the preservice teachers as well as the extensive listings and explanations in the required textbooks, the KWL strategy was reported as being used by the most EC-4 preservice teachers and was listed by all the groups when asked what strategies they were familiar with.

As previously found, KWL seems to be one of the easiest content instructional strategies for preservice teachers to apply in their own teaching. Therefore, particular attention needs to be given to how KWL is introduced and modeled in preservice methods courses so that the preservice teachers understand how to fully develop each aspect of KWL and its variations. Likewise, DR-TA, DL-TA, and word study need to be given special instructional attention. While the DR-TA was reported as being used by only three preservice teachers, various components of the DR-TA and DL-TA strategies were used by many interns. They reported using prediction, activating prior knowledge, modeling, and small group direct instruction. All of these processes are components of DR-TA or DL-TA.

Instruction in word study was evident for interns using phonics, word sorts, word building, or word wall; all of which contribute to an understanding of English orthography and the word identification component in the teaching of reading. While some of the above listings such as phonics are not explicit strategies, they were listed by the interns and are sometimes listed as such in professional booklets from the Texas Department of Education and articles in professional journals. Further, there is often no clear distinction between strategies, skills, and activities in many professional textbooks (Griffith & Ruan, 2005). This indiscriminate use of terms result in a lack of understanding of the metacognitive component of strategic teaching. Even though a lesson in the university seminar during the intern semester focuses on distinguishing between strategies, activities, and skills, it is understandable that preservice teachers remain confused when this terminology is so muddled in the professional materials that they read and study.

Some discrepancies between strategies preservice teachers believed to be the most useful to them and the frequency of use were noted. Eight interns reported using only one or two strategies each while eight interns reported using six to eight different strategies. The other 17 interns reported using between three to five different strategies. These variations could be

accounted for by the teaching opportunities within a particular intern's placement. For example, some of the interns were placed for half of their field-based experience in pre-kindergarten and kindergarten classes. The age and sophistication of the children may have led to employing a limited variety of content-instructional strategies. It seems that individual interns did not use a great variety of strategies, but each seemed to have a mix of their own to implement that they thought to be effective with their particular groups of children. Perhaps their comfort with using a particular strategy was part of the decision making in selecting which strategies to use.

Several of the strategies reported as being used by only one intern appeared to be contrived at the time or given a name identity from the classroom in which they were teaching. These strategies seem to be invented to fit into their lesson plan in order to report having used a strategy. However, the researchers believe that the preservice teachers used parts, pieces, and processes of recognizable content strategies to aid their instruction. Interestingly, preservice teachers used their knowledge of the component thought processes and pedagogical methods that comprise teacher education curriculum related to content area instructional strategies for on-the-spot strategy invention. This invention occurred when they were helping learners understand information that was unexpectedly difficult. It then follows that the common underlying thought processes and various factors that make a strategy strategic need to be taught so that preservice teachers have the cognitive and metacognitive knowledge to invent, construct, and/or select from various strategy components to fit their instructional situation at the time. That is why knowledge of brain research, reading comprehension research, English orthography, learner engagement research, metacognition, and thought processes inherent in effective content instructional strategies is so important for beginning teachers.

This pilot study was based on a replication of Howe et al. (1997). However, difficulties with analysis and recent reading of *Studying Teacher Education: The Report of the AERA Panel on Research and Teacher Education* (Cochran-Smith & Zeichner, 2005) have provided insight into improving the research design for future studies to overcome a variety of limitations. We have learned that the preservice teachers need a structured list of strategies that they recognize. So, we are developing a new list of strategies that the preservice teachers have specifically learned in their reading course work. These strategies will have a metacognitive component and be listed under the broader categories of comprehension, vocabulary, fluency, phonics and phonological awareness in the lists in future studies. Then, when the preservice teachers enter data on their teaching log, they will have to determine which of the five reading elements they are focusing on, state which strategy they are using to engage their students, and explain why it is strategic.

For researchers who want to pursue this line of investigation, we suggest collecting individual knowledge ratings from preservice teachers on a list of strategies developed by the researchers. This list should be comprised of strategies that have actually been taught in the reading-methods courses. The strategy log should be supplemented with artifacts such as completed lesson plans and student work to verify what was implemented. Further, observations should be conducted to confirm that the strategies being reported are being implemented in a strategic manner. The Teacher Learning Instrument (TLI) (Rosemary, 2005), could be used in conjunction with planning and observation to deepen knowledge of literacy teaching, increase awareness of the preservice teacher's role in student learning, and collect data that demonstrates an influence on student achievement. Additionally, supplementary reflections on which strategies were most useful should be collected after the field based experience to gain further insight into preservice teacher reasoning. Moreover, as Zeichner (2005) points out, data should be disaggregated by instructor, school assignment, and contextual demographics to gain insight into how specific factors impact selection and implementation of various strategies. Finally, assessing the impact this content-strategy instruction has on mentor teachers, and more importantly public school students involved in field-based program, is critical if we are to demonstrate the worth of teacher education.

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TEXT TO TEST COMPARISON IN TEXAS: AN ANALYSIS OF INFORMATIONAL TEXTS IN BASAL READERS FOR ELEMENTARY STUDENTS

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Abstract

With the rapid growth in the children's literature market, teachers today have access to a wealth of resources with which to teach reading. Yet, recent research indicates that teachers continue to depend on basal reading textbooks as their main resource. As the use of the Internet increases, students must learn to read informational text proficiently at earlier ages. The purpose of this content analysis study, which was conducted by preservice students, was to examine eight popular state-adopted basal readers to determine the type and amount of informational text found within each basal reader. In addition, this study compared the content of reading passages from sample-released TAKS tests to the content of selected basal readers in order to determine if the informational text passages were similar in quantity and quality.

Schools today are charged with the task of preparing students for a fast-paced, highly technical world, where children are continuously bombarded with complex written messages. To be successful, they need strategies for comprehending a wide variety of texts (Palmer & Stewart, 2003). Because of this, preservice teachers must be trained to select high quality reading materials from a vast array of choices. Recognizing the need to address these issues in an authentic manner, this project began as a small pilot study with the principal investigator also serving as an undergraduate reading professor. Preservice students, enrolled in two different reading courses, designed and conducted much of the research. The goals of this project were to help preservice students make better choices concerning instructional reading

materials while providing them with an understanding of the content of current state-adopted basal reading textbooks, and a working knowledge of the content of reading passages found in one state-mandated formal assessment.

Purpose of the Study

Since 1999 the Texas Assessment of Knowledge and Skills (TAKS) has been the primary measure of reading success in Texas (Texas Education Agency, 2005). Students in third and fifth grades must successfully complete the TAKS objectives in order to advance to the next grade level. To prepare students for this annual test, Texas teachers frequently utilize pre-approved textbooks, including basal reader series, which are provided by state monies.

The purpose of this study was twofold. First, a content analysis was completed using eight popular basal readers available to Texas elementary-level teachers. Content analysis was used to determine the variety of genres and the extent of the inclusion of informational text material within each basal reader. Second, the reading passages taken from released-TAKS tests over two recent years were examined, with the same content analysis process, in order to determine the percentage of informational versus narrative type texts that elementary children must read in order to pass the TAKS tests. The study was structured around three questions:

- What proportion of passages and pages in popular basal readers represent narrative and informational text?
- What proportion of passages and pages in the TAKS reading assessment represent narrative and informational text?
- When comparing passage content, do the TAKS reading passages reflect similar content found in popular basal readers?

Review of Literature

More than 300 years ago, Johann Amos Comenius created *Orbis Pictus*, a work that has come to be known as the first nonfiction book for children (McMath, King, & Smith, 1998; Menck, 2001). Designed to be used as a textbook, Comenius logically began the *Orbis Pictus* with an “*invitatio*,” a picture and a story, ending it with a “*clausula*,” a conclusion accompanied by the same picture (Menck). While informational materials have been available for children for more than three centuries, in the past these books have had a less than desirable reputation as they were sometimes viewed as boring textbooks filled with facts and uninteresting drawings or photographs (Kobrin, 1988).

Today, with so many choices, informational books are far from boring. Over the last twenty years, a major revolution in publishing has brought about an exciting array of attractive and inviting informational books. Publishers such as Scholastic, Usborne, Eyewitness, and DK (formerly Dorling Kindersley)

have flooded the market with numerous examples of stunning, fascinating books, which appeal to children of all ages (Darigan, Tunnell, & Jacobs, 2002).

Beginning in the early 1990s, across the nation individual states began to initiate wholesale changes in the language arts curriculum. Moss and Newton (2002) noted it was during this time the textbook publishing industry began to respond with a broader variety of children's literature being added to elementary level basal textbook series. They went on to note that basal reader publishers began to include "unedited and unabridged versions of complete works of literature" in basal texts (pp. 1-2). However, Moss and Newton concluded that while more stories have been added informational texts continue to be represented in smaller quantities in basal readers.

Since 1990, the state of Texas has devoted billions of dollars to literacy education in elementary classrooms. Funds from the Texas Success and Reading Initiatives and the Reading First grants have been utilized to improve reading instruction (Texas Education Agency, 2005). In addition, large sums of state funds have been devoted to the purchase of state-approved reading textbooks which are provided to all elementary teachers. Furthermore, Texas, as one of the largest purchasers of textbooks nationwide has a detailed system for selecting textbooks including basal readers (Texas Education Agency, *Instructional Materials Bulletin*, 2006).

While basal reading textbooks represent one method of instruction, researchers have explored many ways that teachers may prepare students to be powerfully literate in the Information Age (Duke, 2004). In a review of the research, Duke recommended increasing the access to and time spent on informational text reading, teaching comprehension strategies, and creating opportunities and real life purposes for reading informational books. Other researchers have suggested that high quality informational books help to answer children's questions, provide a stimulus for critical thinking, introduce young children to exciting research, and prepare students to participate in real practice of content reading in the intermediate and middle grade levels (McMath, King, & Smith, 1998). Finally, informational texts abound in rich vocabulary related to content subjects such as science and social studies while providing a natural motivation that leads to sustained engagement in literacy activities (Palmer & Stewart, 2003).

While discussing methods to teach expository text structures, Moss (2004) stated that the internet presents schools and educators with one of their greatest challenges related to literacy, especially in the area of comprehension of informational texts. Others believe the "fourth-grade slump," a problem evident when test scores appear to decline during the intermediate grades, might be linked to heavy usage of narrative reading material in the early years (Chall, Jacobs, & Baldwin, 1990; Duke, as cited in Palmer & Stewart, 2003).

Recognizing that many American children were not experiencing suc-

cess in reading, the National Research Council issued a report outlining the challenges related to teaching young children to read and made recommendations regarding specific guidelines for preventing failure. Snow, Burns, and Griffin (1998) noted in *Preventing Reading Difficulties in Young Children*:

Previously 'unimportant' reading difficulties may appear for the first time in fourth grade when the children are dealing more frequently, deeply, and widely with nonfiction materials in a variety of school subjects and when these are represented in assessment instruments (p. 78).

Thus, by introducing a variety of informational texts sooner and including them with frequency, teachers may help to reduce the incidence of middle-school reading difficulties (Snow et al., 1998).

Need for the Study

Prior to 1980, educators mostly believed that our youngest readers comprehended narrative texts easier than expository, perpetuating the myth that children should not attempt reading nonfiction until after grade four (Egan, 1988; Reese & Harris as cited by Palmer & Stewart, 2003). However, Pappas (1991) examined the work of kindergarten children interacting with nonfiction texts. Results indicated that when given the opportunity, these young children could successfully respond to various genres. However, even though research has proven that nonfiction is appropriate for younger children, fiction continues to be the dominant genre in most elementary level classrooms (Begley, 1996; Caswell & Duke, 1998; Duke & Kays, 1998; Duke, 2000). In a study related to the inclusion of nonfiction trade books in the primary classrooms, Palmer and Stewart (2003) found that until very recently, few informational books were written for our youngest children and noted those available were difficult for teachers to locate.

Teachers today must make instructional decisions daily about effective ways to integrate children's literature into their classroom routines. Yet, with the immense number of available texts and materials, choosing the best books can be a challenge to less experienced teachers. Teachers of younger students in the last ten to fifteen years have increased the number of informational books included in their daily instructional schedule (Moss, 2004, 2005; Palmer & Stewart, 2003). However, as in the past, it is believed that teachers continue to depend upon basal readers as a mainstay of literacy instruction. Previous studies have estimated 80% to 90% of children enrolled in American schools have learned to read predominately using basal textbooks (Aaron, 1987; Farr, Tulley, & Powell, 1987; Weaver & Watson as cited in Hoffman, et al., 1998). Recently, some have even advocated for a stronger inclusion of informational texts into the school curriculum as necessary preparation for everyday adult literacy-related activities (Duke, 2006; Saul & Dieckman, 2005; Venezky, 2000).

Recognizing the importance of including informational texts into the

classroom routines, the elementary level teacher might expect to find easy access within the content of their basal readers. However, when Moss and Newton (2002) conducted a study to determine the availability and accessibility of informational texts to primary students, they found that basal publishers continued to include informational texts in relatively minimal amounts. Upon examination of six basal reader series for second, fourth, and sixth grades, they discovered informational texts were included on an average of less than twenty percent.

Methods

This project began as a response to an interactive class discussion between the reading professor (also serving as the lead researcher) and a class of 16 preservice students enrolled in a literature-focused reading course. Beginning the course with an overview of the variety of genres available for classroom use today, the professor emphasized the importance of children experiencing a wide variety of books throughout their school years (Darigan, Tunnell, & Jacobs, 2002). During the discussion, the preservice students noted that many of the (elementary and middle-school) classrooms they had observed depended heavily on basal reader textbooks and achievement test preparation materials as their main source for reading instruction. The students also noticed that if the children read books independently, fiction was the predominant genre. The discussion carried further to the importance of children reading informational texts in today's Internet-driven world. In response to this discussion, their reading professor provided them with an article by Moss and Newton (2002), which was related to informational texts in basal readers.

During a subsequent discussion of the informational text article by Moss and Newton (2002), the preservice student researchers suggested the class begin a project of conducting a content analysis of basal readers currently in use in Texas classrooms. After reviewing methods and procedures of the aforementioned article, the undergraduates chose to evaluate basal readers in grades two through five. Because of the current emphasis on formal testing, the student researchers also suggested a content analysis of recently released TAKS passages be included in the study.

Thus, this project began as a small pilot study originally with 16 undergraduate preservice students with the subsequent addition of eight other preservice students to complete the process. These undergraduate students were enrolled in two different reading courses at a university in northeast Texas. The lead researcher of this project taught both of the undergraduate reading courses in which the student researchers were enrolled.

The first group members, who included eight research teams consisting of two students each, participated in the initial basal reader content analysis.

These students were predominately classified as sophomores and juniors in rank; 12 of the students were elementary majors while four were middle school focused. The second group members, who included eight senior-level undergraduate students, were enrolled in their last reading course prior to completing student teaching. The second group reviewed the initial analyses in order to provide consistency. A content-analysis process (Berg, 2004) was used to analyze passages included in the basal-reader textbooks and TAKS reading tests.

Materials

There were two types of materials used for the study: the various basal readers and the TAKS released passages from the previous two years. Sample copies of the most popular basal readers provided by the state to the university were initially examined. The eight research teams began by browsing the various basal readers in order to become familiar with the content and layout. Next, in order to reduce researcher bias each basal-reader textbook was covered with butcher paper and labeled with a number. Student researcher teams then randomly selected a basal text by drawing a number from a hat. The eight numbers drawn by the student researchers determined the eight basal readers that were reviewed. Thus, the basal readers selected for this project included four grade levels from four popular series approved for Texas classrooms. The eight textbooks chosen for this project were:

1. Harcourt Collections *Just in Time* (Grade 2) (Farr, et al., 2002);
2. Harcourt Collections *Pathways to Adventure* (Grade 5) (Farr, et al., 2002);
3. McGraw-Hill *McGraw-Hill Reading* (Grade 2) (Flood, et al., 2001);
4. McGraw-Hill *McGraw-Hill Reading* (Grade 3) (Flood, et al., 2001);
5. Scholastic *Literacy Place* (Grade 2) (2000);
6. Scholastic *Literacy Place* (Grade 3) (2000);
7. Scott Foresman Reading *Imagine That* (Grade 3) (Afflerbach, et al., 2000); and
8. Scott Foresman Reading *Seeing is Believing* (Grade 4) (Afflerbach, et al., 2000).

The TAKS reading passages examined came from the Spring 2003 and Spring 2004 semester testing periods (Texas Education Agency, Student Assessment Division, 2005). Both the lead researcher and the students initially examined the TAKS reading passages from third through sixth grades. Next, after drawing from a hat, it was determined the TAKS third and fourth grade reading passages would be selected to study. Finally, the lead researcher analyzed the randomly selected TAKS passages.

Procedures

After browsing the selected basal readers, the eight student research teams prepared for the content-analysis activity. As a group, the students discussed and agreed to categorize the basal passages into three broad genre groups: narrative, informational, and combination passages (narrative nonfiction). To help them determine which genre the basal passage fit, and to improve consistency of results, the students agreed to use criteria concerning characteristics of genres found in *Children's Literature: Engaging Teachers and Children in Good Books* (Darigan, Tunnell, & Jacobs, 2002). The student researchers continued by designing a tally sheet on which they recorded their data. The tally sheets were organized by genre with narrative passages to include stories, fables, fantasy, realistic and historical fiction. Informational texts included all nonfiction and expository texts, while the combination passages included biographies and any other texts that combined narrative and nonfiction (See Appendix).

In order to understand the process and to increase inter-rater reliability, as a group the student researchers discussed the content analysis procedures. Next, each of the teams analyzed their selected basal reader and recorded the results on the tally sheets. After completing the tally totals, percentages were computed based on total passages and total pages found in each basal reader. The eight teams repeated the process a second time and teams met to establish consensus on the designated categories included on the tally sheets, in order to improve inter-rater reliability.

While the students completed the basal reader analysis, the lead researcher completed the initial analysis of the TAKS passages. Tally marks were assigned using the same system devised for the basal text analysis. To ensure accuracy, the lead researcher repeated this process three times, and two additional outside researchers reviewed the figures.

Results: Content Analysis

Basal texts. The total number of passages (Table 1) of each genre category were calculated and represented by their percentages as demonstrated in the basal reading series for grades two through five. The most frequently occurring type of literature noted in the basal series at all grade levels was informational passages (52%). Narrative passages made up the second largest percentage of selections (34%). Combination passages including biographies and all texts that combined narrative and nonfiction represented the remaining portion of basal readers (14%).

Table 1. Reading Basal Textbook Passage Analysis

PUBLISHER	GRADE LEVEL	TOTAL (N)	NUMBER OF PASSAGES		
			NARRATIVE	INFORMATIONAL	COMBINATION
Harcourt	2	33	10 (30%)	21 (64%)	2 (6%)
Harcourt	5	68	20 (29%)	45 (66%)	3 (4%)
McGraw-Hill	2	29	10 (34%)	17 (59%)	2 (7%)
McGraw-Hill	3	15	8 (53%)	3 (20%)	4 (27%)
Scholastic	2	37	14 (38%)	22 (59%)	1 (3%)
Scholastic	3	50	12 (24%)	35 (70%)	3 (6%)
Scott Foresman	3	34	10 (29%)	19 (56%)	5 (15%)
Scott Foresman	4	108	37 (34%)	27 (25%)	44 (41%)
Mean		46.75	15 (34%)	24 (52%)	8 (14%)

Next, the total number of pages (Table 2) devoted to each genre category was calculated with percentages for the basal reading series in grades two through five for each publisher. The literature category with the highest percentage of pages overall in the basal series at all grade levels was determined to be narrative (60%). The informational text category made up the second largest percentage of selections (24%). Last of all, the combination text category represented the remaining portion examined in the basal readers (16%).

Table 2. Reading Basal Textbook Page Count Analysis

PUBLISHER	GRADE LEVEL	TOTAL (N)	NUMBER OF PAGES		
			NARRATIVE	INFORMATIONAL	COMBINATION
Harcourt	2	210	109 (52%)	73 (35%)	28 (13%)
Harcourt	5	358	180 (50%)	151 (42%)	27 (8%)
McGraw-Hill	2	238	190 (80%)	25 (11%)	23 (9%)
McGraw-Hill	3	210	142 (68%)	19 (9%)	49 (23%)
Scholastic	2	296	227 (77%)	59 (20%)	10 (3%)
Scholastic	3	304	137 (45%)	125 (41%)	43 (14%)
Scott Foresman	3	221	109 (49%)	46 (21%)	66 (30%)
Scott Foresman	4	536	308 (57%)	88 (16%)	140 (26%)
Mean		296.63	175 (60%)	73 (24%)	48 (16%)

Upon comparison of the varying percentage rates of passages counted in the informational text genre, a wide range could be found, from 20% in one third-grade textbook, up to 70% in a different third grade series. Differences were also noted when comparing the percentage of pages devoted to informational text with a range of 9% of the total pages counted in a single third grade textbook, up to 42% of the total pages in one fifth grade textbook.

TAKS reading passages. Complete data illustrating the total number of passages representing each genre category found in the TAKS for third and fourth grades can be found in Tables 3 and 4. The reading passages in the TAKS could be classified clearly as narrative, informational or combination passages. As is typical for most standardized assessments, the number of passages included on each test was generally consistent; however, the number of types of genre passages did vary from test to test and year to year. Overall, narrative passages represented the most frequently occurring genre group noted in the TAKS reading passages when combining both grade levels over two years. Combination passages represented the second most frequently occurring genre group and informational text was third. When examining the third grade reading passages from two years, the mean passage count that could be classified as informational text was found to be 0.5 passages with an average page length of 1. For those same two years in fourth grade, a mean passage count devoted to informational text was determined to be 1.5 passages with an average page length of 3.7. The lead researcher did note, when examining the fourth grade reading passages, that one specific year showed a heavy inclusion of informational and combination passages with no narrative text, while the other year contained a heavy amount of narrative text with only one informational passage (See Table 4).

Table 3. Texas Assessment of Knowledge and Skills (TAKS) Reading Passage Analysis for Grade 3

YEAR	NUMBER OF PASSAGES			
	TOTAL	NARRATIVE	INFORMATIONAL	COMBINATION
2003	3	2	0	1
2004	3	1	1	1
Mean	3	1.5	0.5	1

YEAR	NUMBER OF PAGES			
	TOTAL	NARRATIVE	INFORMATIONAL	COMBINATION
2003	8	5	0	3
2004	8	3	2	3
Mean	8	4	1	3

Table 4. Texas Assessment of Knowledge and Skills (TAKS) Reading Passage Analysis for Grade 4

YEAR	NUMBER OF PASSAGES			
	TOTAL	NARRATIVE	INFORMATIONAL	COMBINATION
2003	4	0	2	2
2004	4	3	1	0
Mean	4	1.5	1.5	1

YEAR	NUMBER OF PAGES			
	TOTAL	NARRATIVE	INFORMATIONAL	COMBINATION
2003	9	0	5.5	3.5
2004	8.5	6.5	2	0
Mean	8.75	3.25	3.75	1.75

Conclusions

This study was initiated by undergraduate students who were concerned that the classroom teachers they were observing were relying on the basal reader as their sole source for reading material in order to help students pass the TAKS tests. Three questions were developed for the study.

To answer Question 1, *What proportion of passages and pages in popular basal readers represent narrative and informational text?*, the basal reader passages were examined. While the textbooks included numerous informational text passages, the number of pages devoted to that genre category was substantially smaller. For example, in one specific textbook (McGraw-Hill Grade 2) a total of 17 informational text passages represented 59% of the total passages in that book; yet the total page count for those same passages equaled 25 pages or only 11% of the total pages examined. Researchers observed that more than one of the basal textbooks included multiple one-page selections devoted to informational text while narrative passages consisted of more than ten pages in every instance. The mean page count for informational text passages in the basal readers was found to be 73, while the mean page count for narrative passages in the basal readers totaled 175. It was found in this study that publishers continue to devote a much larger number of pages to the narrative selections.

Concerning the status of informational texts included in popular basal readers examined in this study, the data appeared to support the conclusion that while more informational text passages were included, the number of pages devoted to those passages continued to be significantly lower. The narrative passage page-count represented 60% of stories, while informational text was represented by only 24%. Thus, the data indicated there was a dis-

parity in types of texts found in basal readers. For basal readers to have a stronger balance of narrative and informational type texts, in the future publishers will need to include longer, more in-depth informational passages.

To answer Question 2, *What proportion of passages and pages in the TAKS reading assessment represent narrative and informational text?*, the TAKS reading passages for two years were examined. Concerning the length of the TAKS reading passages, similar to other standardized assessments, the TAKS passages totaled two to three pages in length, with no distinguishable difference between the narrative and informational text categories. However, other inconsistencies were found between the grade levels of the TAKS in the two years examined. With the varied nature of the types of genre passages included from test to test and year to year, the content of the TAKS reading passages made it difficult to find a consistent passage pattern. In addition, while narrative passages represented the most frequently occurring genre group, informational passages were included heavily in one grade level, with narrative passages being excluded altogether. The inconsistent passage patterns of the TAKS should be examined and adjusted in the future, to better reflect traditional reading achievement test content expectations.

To answer Question 3, *When comparing passage content, do the TAKS reading passages reflect similar content found in popular basal readers?*, TAKS to basal comparison took place. Upon comparison of the type of reading passages found in the TAKS, to determine if similar content was reflected in popular basal series, it appeared that similarities could not be found. As stated earlier, narrative passages found in the basal readers were substantially longer than the informational text passages, indicating Texas students read narrative selections much more frequently than informational ones. This would seem to indicate the state-provided basal readers examined in this study and the TAKS passages do not correspond. With these findings, it would seem both the TAKS and the basal readers must undergo some revisions in order to establish a stronger balance of preparation and assessment for Texas schoolchildren. It is important to note though, a larger test sample should be used for future research related to the TAKS.

Final Thoughts from the Student Researchers

Early in the analysis process after browsing the basal readers, the student researchers made some general observations concerning genres, illustrations, and multicultural representation. Overall, all of the basal reader textbooks examined included a wide variety of genres and styles; the illustrations were numerous and of high quality. It was also noted that while poetry passages were not included in the content analyses, this genre was well rep-

resented in all selected basals and grade levels. In addition, all basal readers examined appeared to represent a variety of cultures. Finally, researchers noted through observation, that skills-related lessons and test practice passages were generously included. After completing the comparison of the basal reader textbook findings to the analyzed TAKS passages, the student researchers concluded that while the basal readers contained a variety of genres, elementary and middle-school students could benefit from teachers continuing to supplement ongoing reading instruction with additional amounts of informational texts on a consistent basis.

Following the findings, in a final group discussion, the lead researcher posed the question, "How should elementary and middle-school preservice teachers be taught to use informational texts in their daily classroom routines?" The lead and student researchers in this study agreed that preservice teachers should be encouraged to include ample amounts of authentic informational texts in elementary and middle-school classrooms on a daily basis. Furthermore, with the varied nature in presentation style of the informational text in the examined basals, and especially the lower page count of these materials, this study appears to support previous research by Moss and Newton (2002), concluding that basal readers are still dominated by fictional narrative literature.

Future Research

More than a decade ago, Pappas (1991) concluded that our primary age students should be encouraged to read more informational texts. If indeed younger students do benefit from an increase in the number of informational type texts used daily in elementary level classrooms, then additional research should be done in order to determine the methods and materials best suited to attaining this goal. Moreover, future research is needed in Texas classrooms to determine if increasing the amount of informational texts read regularly in the classroom may improve results on assessments such as the TAKS reading tests. In addition, because this study was limited to eight basal readers, content analysis should be extended to all the basal readers used in the state. Finally, a larger sample of TAKS passages needs to be reviewed.

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Appendix. Tally Sheet for Content Analysis of Basal Reader Series

Student Researcher Name(s) _____

Basal Textbook Publisher _____

Basal Textbook Title _____

Grade level _____

Place a tally mark beside each genre for each selection represented within this textbook.

Narrative/fiction

(Includes contemporary realistic fiction, Historical fiction & Fantasy)

Total number of pages devoted to narrative: _____

Informational/Nonfiction (Includes biography):

Total number of pages devoted to nonfiction/informational: _____

Combination Texts (Hybrid/narrative nonfiction):

Total number of pages devoted to combination passages: _____

Total Number of *Passages Examined* in Textbook: _____

Total Number of *Pages Examined* in Textbook: _____

Total Number of Pages in Textbook: _____

THREE VIEWS OF CONTENT-AREA LITERACY: MAKING INROADS, MAKING IT INCLUSIVE, AND MAKING UP FOR LOST TIME

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Abstract

In this paper, the authors will discuss three views of content-area literacy that arise from their respective practices. The first view, Making Inroads, raises issues related to working with secondary content area teachers and suggests means for accommodating them. The second view, Making It Inclusive, describes the adaptation of an existing content area reading class to address the preparation of teacher-candidates in areas related to English-language learners. Making Up For Lost Time, the third view, describes a private practice that serves the needs of young adults who have been successful in school, yet find high-stakes testing for college and graduate study to be challenging. Underpinning all three views is the importance of recognizing learners' particular contexts.

As professors of literacy, we share a commitment to developing cross-curricular literacy understandings. While much has been written about content-area literacy since Herber's seminal work in 1978, the particular contexts in which we work have presented three unique sets of challenges that only recently have begun to surface in the professional literature and professional conversations, if at all. They are as follows:

- convincing middle and high school content-area teachers that they should share accountability to develop literacy in their subject areas,
- broadening the notion of content-area literacy to incorporate strategies for English language learners' particular needs, and

- assisting young adults who previously have been successful in school, but for whom content-area literacy becomes problematic when they are faced with high-stakes testing.

With its 2006 publication of *Standards for Middle and High School Literacy Coaches*, the IRA and its collaborators foreground the role that literacy professionals play when working with secondary content-area teachers. Snow, Ippolito, and Schwartz (2006) note a number of challenges embedded in this role. First, most secondary teachers lack basic knowledge about literacy instruction, knowledge that their elementary counterparts routinely gain as part of their undergraduate preparation. Second, secondary teachers view their role as conveyers of *content*, the breadth of which is ever-increasing in their respective curricula. Third, because of the departmental organization of secondary schools, they most often teach over one hundred students a day, each for only a brief period of time. Students, as a result, see many teachers during the day, with no single teacher monitoring their progress and, therefore, feeling ownership for their literacy needs. Sturtevant (2003) cites an even bigger problem, however, in acknowledging that “many content-area teachers do not believe that they *should* [emphasis ours] include literacy-related strategies in their repertoire of teaching practices” (p. 10). Indeed, the secondary content areas are fraught with historic and systemic roadblocks for making inroads into literacy.

Complicating the development of content-area literacy at all levels of schooling is the rising population of students for whom English is not their native tongue. Presently, half of all public-school teachers have at least one English language learner in their classrooms and this number is likely to increase. In 1994, only 28 percent of public school teachers with English-language learners in their classrooms had undergone any training, even an in-service workshop, preparing them for teaching these students. Traditional English-as-a-Second-Language programs have focused on issues of language theory and practice, with little or no attention to academic language across the curriculum or the contexts in which language is used. Not surprisingly, in a 1999-2000 Schools and Staffing Survey (Gruber, Wiley, Broughman, Stizek, & Burian-Fitzgerald, 2002) over 41 percent of our public school teachers reported feeling inadequately prepared to teach English-language learners. Consequently, it comes as no surprise that the education of English-language learners is often compromised before they attain proficiency in English. Recent work in sheltered instruction (Echevarria, Vogt, & Short, 2000) holds promise for helping to meet these students' needs for academic language as well as academic content but there still is much work to be done.

The issue of working with adults whose content literacy has been superior, earning them high grades in selective high schools, but who suddenly find it insufficient for meeting the demands of the SATs, GREs, MCATs, and

LSATs is not well-researched. For example, the most recent edition of the venerable *Handbook of Reading Research* (Kamil, Mosenthal, Pearson, & Barr, 2000) included no studies of this aspect of literacy. These students usually are not guided by school or university personnel and most often contact the specialty schools and tutors on their own. Their goal is to enter prestigious universities, doing whatever it takes to get there, hopefully without anyone's discovery that they needed outside help. The well-kept secret of the good to superior students who pay for coaching in high-stakes tests remains all but overlooked.

In this paper, we shed additional light on these aspects of content-area literacy by discussing issues that have arisen in our practices. Told in our respective voices, each view reveals how we have considered the context in which we work and made decisions accordingly. In *Making Inroads*, we share strategies that have been successful in working with secondary-education teachers. In *Making It Inclusive*, we describe the adaptation of a content-area reading class to make it more appropriate to English-language learners' particular needs. Finally, in *Making Up For Lost Time*, we address ways in which content-area literacy applies to preparing students for success in high-stakes testing. We hope that these experiences will enrich the overall body of knowledge about content-area literacy.

View #1: Making Inroads

The assistant superintendent stood before the middle and high school teachers gathered for the district's mandatory In-service Day presentation. She introduced me as the expert who would be speaking to them about how to teach reading and writing in the content areas and then immediately left the auditorium. As I stepped up to the microphone, participants began passing out sections of the daily newspaper to their colleagues. As if on cue, they opened them, held them in front of their faces, and began to read. I said to myself, "This is not going to be easy."

I did not remember reading about passive aggression in the content-area literature, but here it was, greeting me at the start of what was likely to be a very long day. I later learned that the decision to dedicate an In-service Day to "Teaching Reading and Writing in the Content Area" and to have me speak was made unilaterally by Central Office—just one of many top-down decisions made in this school district. Teachers and principals had been asked for no input; they simply had been told that they needed to know more about teaching reading and writing in the content areas and that failure to attend my session would result in the loss of a day's pay. It was clear from their body language that they had to be there in body, but they were not planning to participate in spirit.

Fortunately, most secondary audiences with whom I have worked have not been so overtly resistant, although there probably have been others who have wanted to do the same under similar conditions. I have come to understand that most requests for reading-and-writing-in-the-secondary-content-area presentations do not emanate from the teachers themselves. On the contrary, most secondary teachers believe that the responsibility for literacy resides with those who teach “down there” in the lower grades or “over there” in the English department. Students should *know it* by the time they get to the middle and high schools.

Those of us who are in love with literacy and have made it our life’s work understand the critical importance of shared accountability for developing fully literate people. We know that the task extends far beyond reading groups and the elementary school. We know that it is pervasive, cross-curricular, and cross-grade and age levels throughout a learner’s life. We know that the accountability for developing it belongs to everyone. We are the choir, and no one needs to preach to us. Unfortunately, most secondary teachers are not in this choir, and we must reckon with the reasons why. Secondary content-area teachers have spent their educational lives studying content, becoming experts in their disciplines. To them, reading and writing are subjects, not processes. Other than their own tacit understandings as adult readers and writers, they are not even aware of what is involved when one reads and writes. And, certainly, learning about these processes doesn’t seem age-appropriate for high school! In our zeal as literacy professionals, we sometimes forget this, and haughtily assume that those who don’t share this zeal are somehow inferior, uncaring, or professionally incompetent. They are not. They simply come from a different schema, one in which content is most important. Coming to terms with this bias and meeting our secondary colleagues on their own terms is the first step in making inroads.

A Trip Analogy

Many of us who study literacy fell in love with it as elementary teachers and this alone presents a huge hurdle. There is nothing worse for a high school physics teacher than to think that some elementary teacher (whom he hears spent her undergraduate degree studying cut-and-paste and sand-box play anyway) is going to try to tell him how to teach physics or that she is going to imply that he has to teach things that *she* should have done “down there.” On that fateful In-service Day, I thought on my feet and began my presentation with the following trip analogy. I have used it ever since when I speak to secondary content-area faculty.

When my children were 8 and 12 years of age, I took them on a cross-country trip. During the year that preceded this trip, we researched and planned extensively. The USA is a big country with much to see, and we

had only 35 days and a limited budget to spend. We read brochures, consulted travel agencies and friends who had made similar trips, and ultimately prepared personal “wish lists” of places each of us would like to see. We compared lists, found commonalities, and developed an itinerary that would take us from the east coast to the west coast along a northerly route, and back by a southerly route. Along the way, we would stop for a few days at key locales where there was a lot to see. We would spend a day or two in other interesting areas but, unfortunately, some sights would simply have to be “drive-bys,” time only to grab a quick look before motoring on to the next destination.

The extensive research that went into planning this itinerary was very important and kept us from wasting time by wandering around aimlessly, hoping to find something worthwhile. However, this itinerary was only one part of our trip. We had to make an equally important decision about the kind of vehicle that would take us on this journey. We considered flying from city to city, but it was too expensive. The train? Too expensive, and the tracks didn't run to all of the places we wanted to go. Go by car? Too cramped for four people to coexist peacefully for 35 days! Finally, we settled upon a van, in which each family member would have his or her own row of seats and private space. Yes, the itinerary was important, but, without the vehicle, it would have remained just an armchair fantasy.

In schools, we take students on a thirteen-year trip—kindergarten through grade 12. In preparation, we develop a well-researched itinerary. It is called the curriculum, and it is developed through many agonizing decisions about what to see (study), how long to stay (length of unit), and what topics will have to be only “drive-bys” (quick mentions that will be developed more fully later—or not at all). While this itinerary is important, it will remain as a static document, sitting on a shelf, never reaching the travelers (students), without a vehicle to convey it. The vehicle that conveys our curriculum to our students is literacy: reading, listening, speaking, and writing.

I said to the group of secondary content-area teachers,

I do not intend to tell you what should be in your itinerary (curriculum). You are the experts. What I can share with you is information about the vehicle that will get the curriculum into your students' heads, rather than having it remain on your shelves.

I noticed that the newspapers had lowered to the point that I could see the white of their eyes. Maybe, just maybe, I had something to say to these folks.

A Coaching Metaphor

Building bridges from the known to the new is no less important for adults than it is for children. When working with secondary content area

teachers we are faced, for the most part, with people who have little prior knowledge of literacy. The question for me on that In-service Day became “What *do* they know that I can use as a ‘hook’ to help them see the place of literacy in their content areas?” I thought of sports that play such a significant role in the culture of secondary schools, and shared the following metaphor:

I have worked with a middle school science teacher for many years. She has either played, coached, or refereed field hockey since she was twelve years old. Although I am relatively un-athletic, I have spent much time sitting on the sidelines watching my very athletic children participate in organized team sports under the direction of skillful coaches. As my science teacher/coach friend and I have talked over the years, we have discussed the similarities between coaching and teaching, coming to the conclusion that some of the best teaching takes place on fields of play. Here is what we have noticed:

- *Coaches Don't Cancel the Season If They Don't Get Good Players.* They may wish they could, but they can't. They take who they get and develop them as far as they can. As a matter of fact, this is valued in sports, with awards given for “Best Coach,” “Most Improved Player,” and “Most Coachable.” When a junior-varsity coach sees a varsity player performing well in her senior year, he feels justifiable pride in saying, “You should have seen her when she was a freshman. . . .” Starting as a novice and developing into a quality player are prized, both from the coaching and playing perspectives.
- *Coaches Engage Players in Playing the Game.* There is always a scrimmage. Certainly, coaches develop isolated skills, drilling on trapping the ball in soccer, hitting overhead lobs in tennis, and rebounding in basketball. But, there is always a scrimmage, a simulation of the real game in which these skills come together. Without the context of the real game, the isolated drills are meaningless. Coaches know that players not only *won't*, but *can't*, get better if they don't engage in the game.
- *Coaches model the behavior they want to see.* I have yet to see a coach carry a lectern out onto the court or field, stand with arms folded, and lecture about how to play the sport. Yes, they give an intellectual description of serving, trapping, or intercepting, but they simultaneously model what it looks like. They give their novices opportunities to see what a mature player looks and acts like.
- *Coaches teach multiple appropriate strategies.* They know, for example, that strategies for controlling the ball are sport-specific. When the star basketball player goes out for the soccer team, the soccer coach does not say, “I watched you during basketball season and noticed that you have good ball-handling skills, so just do the same

here in soccer.” To a coach this is ludicrous in that dribbling the ball with the hands is forbidden in soccer. Instead, the coach compares and contrasts his sport to others, talks about how to move under certain conditions, how to change directions under others, and so on.

Bringing this metaphor back into the academic classroom, we need to do the same. Ironically, the same coaches who accept these as givens on fields of play often do not consciously think of transferring these behaviors to teaching their academic classrooms. We have to take students where they are and develop them as far as we can. We must engage them in the processes of the academic game, avoiding thinking that “I can’t have my students read the textbook . . . or write . . . because they’re terrible at it.” We cannot forget the importance of scrimmage because, like on the playing fields, students not only won’t—but can’t—get better without being engaged in the processes of reading and writing. They need to see and hear us modeling, thinking aloud the tasks related to reading and writing in different content areas. How does one who has studied science for four years of college go about writing a lab report? How does an historian judge whether or not a source is credible? We must resist assigning reading and writing without regard to any special strategies needed to become successful.

The Importance of Working with a Real Teacher

After sharing the trip analogy and the coaching metaphor on the In-service Day, I noticed that the newspapers had dropped so that I could see the curious but not-yet-totally-convinced looks on participants’ faces. What caused the papers to be folded and put away, however, was when I began to share examples from my friend, the middle school science teacher. She was one of them—a biology major in college who had never heard anything about teaching reading or writing. Yet, she realized that her students were not doing as well as she would like them to and decided to collaborate with a reading specialist in order to reach them more effectively. I shared her reading guides, lessons that she had re-conceptualized in terms of *Before, During, and After* strategies, and writing assignments that incorporated scaffolds that moved students from novices to quality scientific writers (Topping & McManus, 2002). Her work gave the secondary audience models of what is possible when both content and process are combined.

As literacy professionals, we have much to share with our secondary education colleagues. However, attempting to foist our knowledge upon them without recognizing the context in which they do their work is “fruitless,” at best, and “offensive” at worst. If we are to succeed in engendering shared accountability for literacy, we must first pave the inroads. Otherwise, their eyes will remain behind the newspapers.

View #2: Making It Inclusive

A student teacher calls in a panic. Her placement is in a third-grade classroom, in a school district that encompasses both suburban and rural areas. She laments, "I don't know what to do. There is a little boy in my class from Romania. He has been in the United States for only two weeks. He speaks almost no English. Twice a week he leaves the classroom for half an hour to work with a specialist. The rest of the time, though, I am responsible for him. I haven't had any training in teaching students who are not native speakers of English. I'm not in the city, and I didn't expect to find myself in this situation. I have no idea what to do. Can you help me?"

I supervise student teachers and teach a class in reading in the content areas to junior and senior-level students at a regional public university. Many of my students are first-generation college students. Often, their homes lie within a 50-mile radius of the university. They are, for the most part, monolingual, female, and Caucasian; and they have had few experiences with individuals with dissimilar backgrounds. The classrooms, for which they are being prepared, however, look very different, with large numbers of students from varied cultures and socio-economic classes including many students for whom English is not their native tongue.

Within our state, children who speak a language other than English are the fastest-growing segment of the school-age population. Whereas K-12 enrollment has decreased slightly, the percentage of English-language learners has increased over five-hundred percent within the last decade, with the majority of English-language learners attending elementary schools (Pennsylvania English Language Learner Resource Kit for Educators, 2002). Although the largest number of English-language learners are native Spanish speakers, more than one-hundred countries and languages are represented in many metropolitan school districts. Suburban and rural districts, as evident from the vignette, are affected as well, particularly as the smaller number of English-language learners and the great number of languages spoken by the children make bilingual education less feasible and the procurement of other appropriate services more difficult.

A serious impediment exists to challenge our ability to provide the necessary preparation to preservice teachers at our institution. Our university is 1 of 14 within our State System of Higher Education. Currently, we are bound by a directive issued by the Board of Governors intended to increase four-year graduation rates that mandates that programs be delivered within 120 credit hours. Unless students pursue certification in more than one area, we are obliged to ensure that they can complete their program of study within this limited number of credits. A majority of our students pursuing certifica-

tion in elementary education, receive little training in issues relevant to English-language learners.

Consequently, I adapted an existing content-area reading class to address the preparation of our teacher candidates in areas related to English-language learners and consciously included strategies appropriate for English-language learners' particular needs. I incorporated the following principles regarding English-language instruction into the course design:

- English-language learners must be held to the same high expectations established for all learners.
- English-language learners need to receive instruction that builds on their previous educational experiences and that reflects their language-proficiency levels.
- The curriculum for English-language learners must contain challenging content in all content areas, and performance standards consistent to all students.
- English-language learners are to be evaluated with appropriate and valid assessments that are both aligned with state and local standards, and take into account the particular language-acquisition stage of the learners.
- The academic success of English-language learners is a shared responsibility; all teachers, including both specialists and classroom content teachers, must ensure that content concepts and academic English are explicitly taught.

In order to provide my preservice teachers with the necessary tools with which to instruct English-language learners, I introduce them to the concept of sheltered instruction, and various and specific strategies that will make the content more comprehensible. Sheltered instruction, a means for making grade-level academic content more accessible for English-language learners while at the same time promoting English-language development, extends the time that students have for getting language support while giving them a "jump start" on the discipline specific content that they need to acquire. This practice involves highlighting key language features, and teaching these consciously and deliberately within the context of a lesson, while also incorporating research-based strategies that serve to make the content more understandable.

Accordingly, I introduce the principles and strategies described by Echevarria, Vogt, and Short (2000). I require them to develop a series of lesson plans in which they:

- Identify both content and language objectives.
- Choose age-appropriate content-area concepts.
- Identify and use, or create, supplemental materials and resources.
- Plan meaningful activities that integrate lesson concepts with language practice.

- Differentiate assessment according to students' levels of English-language proficiency.

I share the various types of text guides presented by Wood, Lapp, and Flood (1992). In short, I provide these preservice teachers with the tools that they need to ensure that academic English is taught simultaneously with academic content.

View Three: Making Up For Lost Time

A frantic mother calls me and says, "My son is an honor student who has always done well in school. Today he received his PSAT scores and he is very upset. He wants to go to a good school and there is no way that he can with these scores. My husband and I both went to Ivy League schools and we want the same for him. We know that you are very busy but would you please take him on as one of your students? We are desperate."

In my private practice, I work with students who fit the "successful student" profile. They get A's and B's in their core courses, are placed in honors' courses and take AP courses for college credit. Many of them are editors of their school newspapers and mentors to less successful students. Yet many of these school successes feel inadequate when taking the SAT and the ACT. And beyond this level, many are anxious about the LSATs, the MCATs, and even the Medical Boards. The high school "brainiacs," as they are called, have their sights set on the Ivy League and other selective schools. They know, along with their parents, from their PSAT scores, that they need to work to raise their numbers in order to even be considered.

These students are able to verbalize the difference between their own schoolwork and work from outside the school. They have learned how to answer their teachers' questions, how to memorize words, how to write the appropriate essay, and how to do well in teacher-made tests. While they have figured out the formula of mainstream teaching and learning, they have not figured out the paradigm of the high-stakes test makers. They need to take their content-area reading to a new level. They need to go beyond the classroom, beyond their school textbooks, and beyond their teacher made tests. They need to transact with texts and come up with something new for themselves. The most important aspect for them to learn is to be able to practice their own original thinking. The students need to "own" their reading and take responsibility for learning. Once they become active readers, they will have more confidence and, most assuredly, more success. I have found that these "high-powered" students need to:

- slow down and think about their reading,

- become aware of test design and practice test taking,
- read outside of their schoolwork,
- garner vocabulary from their new reading,
- work on their writing under time.

Over years of working with this type of student, I have developed a successful plan and tutorial program for bridging the gap between success in school to success in these high-stakes tests. This program prepares them for the Verbal or Critical Reading and Writing sections of the SAT, for example. It takes content-area reading outside of the box and into the real world. It requires these successful students, who have worked hard throughout their schooling, to work harder than they have ever worked before, and it requires them to think harder than they ever have before.

I begin the program by delving into the students' textbooks and outside readings to discuss the content. I base this on the concept that the content is somewhat familiar to them and they have already read or heard some of it. In this way, the students can see the difference between the way they used to read and the way they should be reading. I use protocol analysis to discuss line-by-line the meaning of the text. I model this by doing an interactive read-aloud with them so that they can hear the type of thinking that is possible. We discuss the vocabulary from the text in detail. We enumerate the multiple meanings of selected words and then check to see if we missed any by checking an unabridged dictionary together.

While we slow down in our reading before we speed up for test taking, we also work on analyzing the test design. We go over the way multiple choice exams are written and discuss the various choices. I use authentic released exam questions and we take the tests and discuss the choices together. Students work on the answers and orally label what the alternate choices are and why they are not the "right" answer.

After we work on the design of the exam itself, we work on practice under time and pressure. Again, we step back to analyze the answers, both right and wrong. In fact, it is through the wrong answers that we gain the most insight. In each case, both student and teacher analyze the "wrongs" in a Talmudic way. The teacher and student reverse roles constantly as they figure out the problem that the student encountered. Why were these "wrongs" wrong? What clue did I miss that would have helped me to get the right answer?

All of my successful students read their school textbooks and assigned readings. However, they do not read materials from outside of their own worlds. In order to fill this gap, I assign readings from top journals in varying fields of study. The students must read an article a day from a different assigned journal. I give them five to seven journals a week from which to choose

articles. They return to the tutoring sessions with short summaries in hand and ready for lively discussion. Some of the journals that I use are: *Scientific American*, *Science*, *Science News*, *Smithsonian*, *The Economist*, *Newsweek*, *Time*, *The New Yorker*, *The Biblical Archeologist*, *Commentary*, and *The Nation*.

Vocabulary discussion and the love of words naturally evolve from this kind of interactive teaching. For most students, this is the first time that they have worked one-on-one with a teacher and discussed language and words. They start to notice and pull words from their readings both inside and outside of school. My experience is that most of my students enjoy this in-depth and lively discussion well beyond the high-stakes tests. Many former students have attested to the fact that these sessions and discussions have made them life-long readers and writers.

While most schools foster the writing process in which students are encouraged to brainstorm and think things through, high-stakes tests give limited time for writing. Most states require some kind of writing assessment at varying grade levels, so my students are familiar with this dichotomy. There are several parts to the new SAT Writing section (Fox, Israel, & O'Callaghan, 2005). They are:

Identifying errors in sentences (18 questions), improving sentences (25 questions), improving paragraphs (6 questions), and essay writing (1 essay, 25 minutes).

The goal in the new SAT is to write a cogent essay in twenty-five minutes. In addition, students are required to identify errors in sentences, improve sentences and improve paragraphs.

In order to prepare for this part of the SAT, I have my students write responses to opinion pieces in the various journals. We work on the plan, the execution, and the revision in twenty-five minutes. I show them how the essays are scored using a holistic approach. I teach them to think of this six-point holistic rubric as their guide when they write. I use a reciprocal-teaching method to have them improve their own essays by checking their grammar and usage. In this way, they prepare for the other sections of the writing section in an authentic way.

Clearly, this is hard work. Only serious students who are willing to read, write, and think can be successful in this program. It is not a "cookie-cutter" program where students memorize lists of out-of-context words. It is a program that takes the best in pedagogy and marries it with eager, bright students. It is a program that takes content area reading to another level.

Summary

Our experiences in the content areas take cross-curricular literacy beyond the conventional classroom and into strata that require strong consideration of context. As you have seen through the vignettes above, we actively reflect on where our constituents are in their understandings, identify their needs, and negotiate the difference. At one level, this seems only to be common sense. At another level, however, we find ourselves simply employing the concepts of schema theory, as good literacy practitioners should do with all students. Our students are just older. Whether working with content-area teachers, teachers-in-training, or school-successful young adults, we must recognize where they are as learners and build appropriate scaffolds. In other words, we must practice what we preach.

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INDIVIDUALIZED LITERACY
ASSESSMENT AND INSTRUCTION

PHONOLOGICAL AWARENESS AND WORKING MEMORY IN CHILDREN WITH PHONOLOGICAL IMPAIRMENT

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Abstract

A phonological impairment is a disturbance in children's speech sound production that occurs independently of physical or cognitive impairment. Phonological impairment may arise from inadequate mental representations of speech sounds and/or difficulty accessing representations. Affected children may struggle to acquire phonological awareness and/or experience persistent academic deficits. Questions remain as to identifying the factors that lead to risk for reading and spelling difficulties in this population. Prior research confirmed that in the general population a concurrent, additive "double-deficit" underlies reading disability —(1) undeveloped phonological awareness and (2) deficient rapid naming of visual symbols. The present study found that deficits in phonological awareness and rapid naming converged in 23 children with phonological impairment and a significant percentage of variance in reading and spelling performance was accounted for by the aggregated factor of phonological awareness and rapid naming performance. A "double deficit" coexisted in this sample of children with phonological impairment.

A phonological impairment is a disturbance in the speech sound production system that results in systematic speech errors (Bird, Bishop, & Freeman, 1995; Shriberg & Kwiatkowski, 1994). This speech-language deficit occurs in children in preschool and the primary grades and is independent of children having any physical, developmental, or cognitive impairment.

The purpose of this research was to investigate whether phonological impairment coexisted with deficits in phonological awareness and/or verbal working memory in a sample of children in grades one to three. Further, we explored the co-occurrence of deficits in phonological awareness and verbal working memory in children with phonological impairment to observe any combined impact on reading and spelling skills.

Phonological impairment is systematic in that it may result in children producing words with particular types of errors. Phonologists describe a complex array of numerous errors, but there are three main error types which commonly occur and which can be easily recognized. One type of error involves changing the syllable structure of words, for example, the closed syllable "soup" is produced as an open syllable "sou" because the final consonant is deleted. A second error pattern changes how and where speech sounds are produced in the mouth. Although the child's intention is to say "car" her production is "tar," not because she is hearing and accessing a /t/ sound but because her representation of the /k/ sound is the sound we most closely associate with /t/. The /t/ sound is produced at the front of the mouth but the /k/ sound is produced at the back so this change in place of production results in a speech error. Children may produce complex patterns of sound changes and substitutions, for instance every *h, f, v, th, s, z, sh, zh, ch,* or *j* comes out sounding like a *p, b, t, d, k,* or *g*, either with one sound predictably and consistently substituted by another sound or as unpredictable errors within a realm of possible substitutions. As part of this pattern of sound changes, children may reduce consonant clusters so that "stove" becomes "tove." In a third pattern of phonological impairment, children change certain sounds predictably or idiosyncratically in the context of certain words. Often this occurs because children are using one simple sound for two more complicated sounds, so that "grandpa" becomes "fampa." Children with phonological impairment may speak with many different manifestations of any or all of the numerous possible error patterns. A constellation of several types of errors occurring simultaneously can render the speech of some children with phonological impairment difficult to understand.

Phonological impairment may arise due to children's inadequate mental representations of speech sounds (Bird et al., 1995) and/or due to difficulty accessing their internal representations of speech sounds (Catts, 1989). Phonological impairment affects from 7.5% (Shriberg & Kwiatkowski, 1994) to 10% (National Institute on Deafness and Other Communication Disorders [NIDCD], 2000) of children ages 3 to 11. Of affected children, 80% require speech-language therapy to facilitate remediation and 50% to 70% experience academic difficulties that may persist through grade 12 (NIDCD, 2000; see also Bishop & Adams, 1990; Lewis, Freebairn, & Taylor, 2000; Torgesen, Wagner, & Rashotte, 1994).

The progression from phonological impairment to difficulties with reading and spelling may be due to inadequate development of the internal phonological representations that are needed to facilitate speech sound production and to map sounds to letters in order to read and spell (Catts & Kahmi, 1999; Frith, Wimmer, & Landerl, 1998; Manis, Seidenberg, & Doi, 1999; Olofsson & Niedersoe, 1999; Share, 1999; Webster & Plante, 1992). Children develop both conscious and unconscious representations of phonemes (Webster & Plante). Children with phonological impairment may have trouble consciously classifying and analyzing speech sounds (Bird et al., 1995) and/or may unconsciously store imprecise phonological representations of words in memory (Lewis, Freebairn, & Taylor, 2002). Both sorts of inaccuracies may lead to errors in decoding (Shankweiler & Liberman, 1992) and/or spelling (Clarke-Klein & Hodson, 1995). Notably, however, speech sound errors do not map directly onto spelling errors (Stackhouse & Wells, 2001).

Phonological Impairment and Phonological Awareness

Bird et al. (1995) and Bishop and Adams (1990) indicated that adequate internal representations of speech sounds contribute to phonological awareness, which is the metalinguistic ability to reflect upon and manipulate speech sounds independently from the linguistic meanings that sounds convey (Rasinski & Padak, 2001). Phonological awareness is critical for learning to read and spell (Torgesen, 1999). Some children with phonological impairment lack the internal phonological representations that are necessary for developing phonological awareness (Catts, 1989; Torgesen, 1999). Webster and Plante (1995) hypothesized that phonological awareness bootstraps onto the child's phonological system with instabilities in the phonological system constraining phonological awareness. Strong and accurate internal phonological representations provoke the association of phoneme to grapheme, allowing reading and spelling to develop (Frith et al., 1998). Accurate word pronunciation stimulates and supports awareness of spelling patterns (Ehri et al., 2001; Rasinski & Padak, 2001). Children with reading disabilities may not perceive distinctions between phonemes as accurately as typical readers (Torgesen, 1999).

To summarize the connection between phonological impairment and phonological awareness, accurate word pronunciation stimulates and supports awareness of decoding and spelling patterns. Therefore, the presence of phonological impairment may hamper acquisition of important literacy milestones—first, the accurate manipulation of speech sounds that phonological awareness entails, and, later, grasping that speech sounds in words are represented by certain patterns of letters and applying phonologically based decoding and spelling skills (Ball & Blachman, 1991; Lewis et al., 2002; Rasinski & Padak, 2001; Templeton & Morris, 1999).

Phonological Impairment and Rapid Naming of Visual Symbols

Apart from phonological awareness, there is a second possible connection between phonological impairment and reading and spelling difficulties. Lovett, Lacerenza, Borden, Frijters, Steinbach, and DePolma (2002) confirmed undeveloped phonological awareness as one of two core processing deficits underlying reading disability, with the other core deficit being rapid naming deficiency. Researchers have thus formulated a “double-deficit” hypothesis which contends that some children exhibit a concurrent, additive deficit in phonological awareness and in rapid naming of visual symbols (Wolf et al., 2002). The purpose of rapid naming of items that have been encountered in the environment, including letters and visual symbols, is that it demonstrates verbal working memory. Some children with phonological impairment have deficits in verbal working memory, in either encoding, retrieval, or both processes (Catts, 1989; Shriberg & Kwiatkowski, 1994; Webster, Plante, & Couvillion, 1997).

Rapid naming is generally assessed by asking children to name colors, letters, or numbers (Wagner, Torgesen, & Rashotte, 1999). Lovett, Steinbach, and Frijters (2000), Schatschneider, Carlson, Francis, Foorman, and Fletcher (2002), and Wolf et al. (2002) variously contributed the view that these rapid-naming tasks are not equivalent demands. Rapid naming of letters reveals additional separate cognitive-linguistic processes that are critical for learning to read (Wolf & Bowers, 1999). Children who have trouble rapidly naming orthographic symbols are evidencing deficiencies related to phonological representations (i.e., names or labels) and/or orthographic representations (e.g., letter forms). While names of real world objects can be linked to real-life experiences and stored as episodic memory (Tulving, 1972), there are few environmental associations that can be linked to letter names. Visual symbols enter memory as icons (Klatzky, 1980) which are then arbitrarily named and stored as semantic memory—as retention of general, impersonal facts or names (Tulving, 1972). Each time a letter stimulus is encountered it must be matched to letter templates or prototypes stored in iconic memory and then matched to its name stored in semantic memory. Inefficient or slow naming suggests (a) inadequate iconic storage of orthographic representations, (b) inadequate semantic memory for letter names, and/or (c) deficient connections between letter names and orthographic symbols (Wolf & Bowers, 1999).

There is ample evidence that deficits in rapid naming of visual symbols coexist with reading difficulties (Bowers & Wolf, 1993; Lovett et al., 2000; Wolf, 1991). In one study good readers named visual symbols faster and more accurately than poor readers (Stanovich, 2000). Roodenrys and Stokes (2001), and Stothard, Snowling, Bishop, Chipchase, and Kaplan (1998) reported that children with reading impairments performed poorly on rapid-naming tasks.

Some children with phonological impairment lack speed and accuracy in retrieving names for visual stimuli (Children of the Code, 2004; Wolf, et al., 2000).

It might be thought that children who are having difficulty learning letter symbols might be taught to read using fluent, whole-word reading strategies (Gordon Pershey & Gilbert, 2002) or by memorizing "sight words," that is attaining rapid, context-free identification of words frequently encountered. However, children who cannot rapidly name letters are at considerable risk for having difficulty developing rapid automatic reading of "sight words" (Bishop & Adams, 1990; Kamhi, 2000; Manis et al., 1999; Stanovich, 2000; Wolf et al., 2002). Sight-word reading by children with rapid-naming deficits would require multiple exposures to stimuli and possibly the application of other learning strategies in order for memorization and rapid access to be attained (Lovett et al., 2000).

In summary, the connection between phonological impairment and rapid naming of visual symbols is that rapid naming reveals the verbal working memory abilities that allow for short-term storage and manipulation of phonological information. Verbal working memory span must be sufficient for retaining internal representations of speech sounds in "on-screen" memory long enough to perform phonological manipulations.

While a deficit in either phonological awareness or rapid naming will interfere with learning to read and spell, coexistence of both deficits is cumulatively injurious to learning to read and spell (Lovett et al., 2000). A phonological awareness deficit compromises meaningful letter-to-sound decoding, while a rapid-naming deficit hampers rapid identification of letters and of words as whole units, such that even familiar words may not be recognized consistently and read fluently (Lovett et al., 2000).

We conducted the present study because it appears that there is scant published research on the coexistence of deficits in phonological awareness and rapid naming in children with phonological impairment. Moreover, there is a lack of documentation of the impact of coexisting deficits in phonological awareness and rapid naming on reading and spelling abilities in children with phonological impairment.

The purpose of this research was to investigate whether phonological impairment coexisted with deficits in phonological awareness and/or verbal working memory in a sample of children. We explored the convergence of the "double deficit" in phonological awareness and rapid naming in children with phonological impairment to observe any combined impact on reading and spelling skills.

Description of the Study

Our research questions involved six comparisons of group performance. First, we asked whether children with phonological impairment would perform more poorly than typically developing peers on six sets of measures. We measured physiologically based functions associated with speech—suprasegmental quality of speech, meaning variations in voice intonation, voice pitch, and rate of speech (set 1) and oral motor control (meaning the ability to produce rapid, coordinated movements of the lips and tongue) (set 2). We presented a variety of cognitive-linguistic tasks that tax verbal working memory and administered rapid naming testing (set 3). We also tested phonological awareness (set 4) and achievement in reading (set 5) and spelling (set 6).

Second, six additional research questions explored measures of association among variables. We asked whether the presence of phonological impairment could be associated with lesser performance in these same areas: (a) suprasegmental quality of speech, (b) oral motor control, (c) verbal working memory (specifically including rapid naming), (d) phonological awareness, (e) reading, and (f) spelling. Third, we questioned whether phonological awareness and/or rapid naming abilities could be shown to have an impact upon the reading and/or spelling performance of children with phonological impairment. In this way we explored whether a “double deficit” in phonological awareness and rapid naming coexisted in this sample of children with phonological impairment.

Methodology

Participants were 23 English-speaking children previously diagnosed with phonological impairment and receiving speech-language therapy (Group 1) and 23 unimpaired peers (Group 2). No children in Group 2 had ever been diagnosed with a speech-language problem or received speech-language therapy. In each group there were 12 children in 1st grade, 8 in 2nd grade, and 3 in 3rd grade matched for race, gender, age (range 6.4 - 9.1), free lunch status, and IQ (average range). The children were from 10 elementary schools in one Midwest county where the median household income was \$60,000 (U.S. Census Bureau, 2000). All passed pure tone air conduction hearing screening at 20 db HL for 500, 1000, 2000, and 4000 Hz and were judged to have functional hearing. Groups 1 and 2 performed significantly differently on a test of speech sound production. Specifically, a measure of Percentage of Consonants Correct (PCC) [obtained by applying results of the Goldman-Fristoe Test of Articulation-2 (GFTA-2; Goldman & Fristoe, 2000) to a procedure adapted from Shriberg, Kwiatkowski, Best, Hengst, and Terselic-Weber (1986)] revealed that the children in Group 1 had significantly poorer speech

sound production than children in Group 2 [ANOVA] $F(1, 44) = 55.16, p < .001$. Children in Group 1 produced significantly fewer consonants correctly. The groups were judged to be dissimilar and dichotomous on the variable of speech sound production.

Procedures involved administration of standardized tests and observational measures in randomized order over three individual testing sessions per child. Each testing session lasted roughly one hour. Randomized order of participation was utilized, meaning that Group 1 and Group 2 children were tested concurrently. One group was not tested before the other group. Testing took place over approximately four months. Individual students left class and were tested in unused rooms in their school buildings. The second author served as tester.

To assess suprasegmental quality of speech, we subjectively analyzed a conversational sample for adequate quality (pitch, intonational contours, and rate of speech) and scored a "0" for adequate, "1" for quality that deviated 10% or less of the time, or "2" for quality that deviated greater than 10% of the time, as stipulated by guidelines proposed by Zelvis. To assess oral motor skill, we scored a "1" for adequate rate, strength, and precision of oral movement or "2" for slowed rate, strength, and precision of oral movement, according to a scale developed by Zelvis (1986). We selected the Zelvis screening tool for this study because it is the approved instrumentation at our university's speech and hearing clinic.

We tested verbal working memory via the Clinical Evaluation of Language Fundamentals-3 Screening Test (CELF-3; Semel, Wiig, & Secord, 1996) subtests for word forms (holding a stimulus sentence in mind and filling in a blank), following directions, and sentence repetition, as well as via the Comprehensive Test of Phonological Processes (CTOPP) (Wagner, Torgesen, & Rashotte, 1999) non-word repetition test. We administered the CTOPP rapid naming subtests of visually presented colors, objects, numbers, and letters and computed a composite score. For phonological awareness we computed a CTOPP composite score for subtests of elision of sounds from words, blending sounds to form words, and matching initial and final sounds in words. We also administered the reading and spelling subtests from the Kaufman Test of Educational Achievement (K-TEA) (Kaufman & Kaufman, 1985). We computed mean scores for each group on all measures.

Results

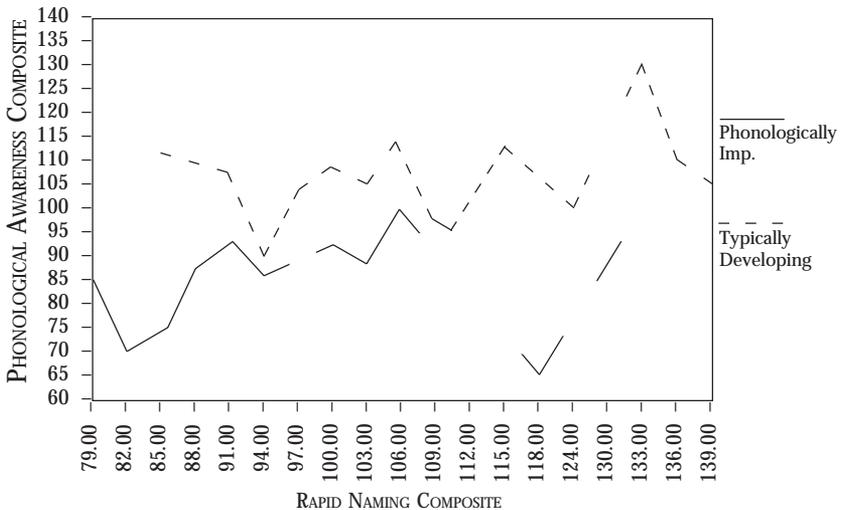
The children with phonological impairment performed significantly poorer than unimpaired peers on most measures, with Group 1 mean scores often below normative means for the standardized subtests. Given an alpha level of .05, differences between groups were significant for suprasegmental

quality [ANOVA] $F(1, 44) = 7.48, p = .009$), oral motor control [ANOVA] $F(1, 44) = 6.11, p = .0170$), two of four cognitive-linguistic tasks that tax verbal working memory (CELF-3 sentence repetition [ANOVA] $F(1, 44) = 5.55, p = .023$); CTOPP non-word repetition ([ANOVA] $F(1, 44) = 10.39, p = .002$), CTOPP rapid naming ([ANOVA] $F(1, 44) = 4.72, p = .035$), CTOPP phonological awareness ([ANOVA] $F(1, 44) = 28.04, p \leq .0001$), K-TEA reading ([ANOVA] $F(1, 44) = 31.72, p \leq .0001$), and K-TEA spelling ([ANOVA] $F(1, 44) = 9.84, p = .003$).

A Multivariate Analysis of Variance (MANOVA) compared groups based on all variables combined – suprasegmental quality and oral motor control, verbal working memory, rapid naming, phonological awareness, reading, and spelling. The difference between groups was significant ([MANOVA] $F(1, 44) = 14.25, p \leq .0001$). Importantly, a MANOVA that compared the groups based on two variables combined, reading and spelling, showed that the difference between groups is significant ([MANOVA] $F(1, 44) = 15.58, p \leq .0001$) for these critical academic areas.

Figure 1 confirms that all participants with phonological impairment attained lower phonological awareness and rapid naming composite scores than typically developing peers. The Figure 1 frequency polygon depicts the intersection of bivariate data, i.e., the performance on the phonological awareness composite and the rapid naming tasks for the two data sets, Group 1 and Group 2. The differences between the groups of children are illustrated.

Figure 1. Intersection of Phonological Awareness and Rapid Naming Scores



Measures of association among variables were ascertained for the children with phonological impairment. Pearson Product Moment correlations associated children's scores on PCC with all other variables. We found a significant correlation between poor production of consonants and poorer scores on oral motor control ($r = -.597, p = .003$), CELF-3 cognitive-linguistic tasks that tax verbal working memory (word forms, $r = .517, p = .012$; direction following, $r = .612, p = .002$; sentence repetition, $r = .464, p = .026$), and CTOPP rapid naming ($r = .405, p = .05$). Correlations showed that phonological impairment was associated with diminished performance in oral motor control, verbal working memory, and rapid naming, but not with lower scores on phonological awareness, reading, or spelling.

Because correlational data did not fully describe whether phonological impairment was associated with deficits in phonological awareness, reading, and/or spelling, Stepwise Regression Analyses were run to determine whether performance on the phonological awareness test could account for variance in reading and spelling test scores. Performance on CTOPP phonological awareness tasks accounted for 41% of the variance in K-TEA reading scores ($p \leq .001$) and 64% of the variance in K-TEA spelling scores ($p = .008$) for children with phonological impairment.

Sixty-nine percent of the variance in K-TEA reading scores obtained by children with phonological impairment could be accounted for by performance on CTOPP phonological awareness and CTOPP rapid naming scores as a combined independent variable ($p \leq .0001$) [coefficient analysis: phonological awareness at $p \leq .0001$; rapid naming at $p = .004$; this indicates adequate stringency for each predictor variable].

To explore the presence of a "double deficit" in this sample, a Stepwise Regression revealed that 66% of the variance in K-TEA reading and spelling scores as a combined dependent variable could be accounted for by performance on CTOPP phonological awareness and CTOPP rapid naming scores as a combined independent variable ($p \leq .0001$) [coefficient analysis: phonological awareness at $p \leq .0001$; rapid naming at $p = .009$; this indicates adequate stringency for each predictor variable]. A significant percentage of variance in the reading and spelling performance of children with phonological impairment could be accounted for by the aggregated factor of performance on phonological awareness and rapid naming tasks. A "double deficit" co-existed in this sample of children with phonological impairment.

Discussion

The present study contributes to the research on the "double deficit" that causes affected children to struggle with reading and spelling. Specifically, the findings of this study provide information on the coexistence of deficits in

phonological awareness and rapid naming in the subpopulation of struggling readers who are children with phonological impairment. While the affects of phonological impairment on literacy acquisition are still uncertain, the differences found between children with phonological impairment and matched unimpaired children were significant for all measures except two verbal working memory tasks (not rapid naming). Children with phonological impairment performed below the normative mean on tests of rapid naming, phonological awareness, reading, and spelling. Phonological impairment correlated with poorer performance on cognitive-linguistic tasks that tax verbal working memory and on rapid naming. In this sample, the children's speech sound production errors could be regarded as having presaged the noteworthy language and memory issues that may impact literacy acquisition.

Conclusions

Phonological impairment is evident in children in the preschool years, before literacy emerges. Speech disturbances which render a child difficult to understand should not be dismissed as developmental motor skill. Results of the present study suggest that speech-language pathologists and educators should monitor young children with phonological impairment who are at risk for literacy difficulties. Children with phonological impairment should undergo team assessment by speech-language pathologists and reading specialists to reveal concurrent deficits in phonological awareness, rapid naming, reading, and spelling. Traditional speech-language assessments and interventions for preschool and primary grade children with phonological impairment have focused primarily upon the characteristics of the child's speech output. Individualized interventions usually take place outside the classroom and with little teacher involvement. Collaboration between speech-language pathologists and preschool and primary-grade teachers might be expanded so that speech-language pathologists supplement individual therapy with intervention within the context of classroom academic demands. Interventions can be tailored to address classroom language and literacy difficulties (for reports of intervention efficacy, see Hesketh, Adams, Nightingale, & Hall, 2000; Nathan, Stackhouse, Goulandris, & Snowling, 2004; Rvachew, Nowak, & Cloutier, 2004; Stackhouse, Wells, Pascoe, & Rees, 2002). All team members would stimulate phonological awareness and rapid naming of letters and visual symbols. Additionally, collaborations would allow teachers to understand children's short-term and long-term speech-language therapy targets and reinforce target behaviors during classroom interactions. These interventions are in accordance with the mandates of the No Child Left Behind Act of 2001 (2002) to reduce academic failure and help children perform on reading achievement testing.

It is important to note that not all children with phonological impairment will manifest difficulties in phonological awareness, rapid naming, reading, and spelling. Future research may distinguish subtypes of phonological impairment, as in phonological impairment with phonological awareness deficit, phonological impairment with verbal memory deficit, phonological impairment with both phonological awareness and verbal memory deficits, or phonological impairment without other deficits.

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THE IMPACT OF UNIVERSITY READING CLINICS: PARENTAL PERCEPTIONS

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Abstract

Parental involvement, beliefs, and attitudes toward reading exert a profound impact on children's literacy development. This study examined parental perceptions of the impact of reading clinics at universities and explored ways to integrate these perceptions into more effective literacy services for children. Two universities in a Midwestern state participated in the study. Participants included 48 parents, whose children were involved in a university reading clinic program. At the conclusion of each semester, parents completed a survey which included open-ended questions as well as statements answered using a Likert Scale. This selection also examines how the university reading clinic can better meet students' needs, based on parental input. Both sets of data (quantitative and qualitative) indicate that parents perceive services received from reading clinics to be extremely beneficial not only for children but for the community at large.

Providing service to the community has long been a key component of the American public university's mission. In education colleges, instructing preservice educators to teach reading is a focal point of teacher preparation. One method used in reading education to help pre-service teachers teach reading involves work in a reading clinic tutoring children. While this is an essential portion in the preparation of effective reading teachers, it also provides a much needed service to parents. Not only do the children receive help, but often parents are provided assessment results, instructional ideas for home, and other suggestions to help their children. This type of program certainly meets one tenet of the university's mission: service.

University reading services, often offered in a reading clinic, are a part of many university reading-methods courses where college students tutor school-aged children and apply what is being taught in the college classroom. In a study of excellent reading education programs, researchers studied the effectiveness of teachers at the time of graduation and for three subsequent years. Findings revealed that “graduates of the excellent programs were more effective than teachers in the comparison groups in creating and engaging their students with a high-quality literacy environment” (Hoffman et al., 2005, p. 267). One finding of the study revealed that teacher education that is field-based and emphasizes practicum experiences best helps prepare teachers to be excellent teachers of reading. Certainly university reading services play a major instructional role in some university reading methods courses.

While preparation of teachers remains the impetus of many reading clinics, the assistance to parents, families, and the community is perhaps one of the greatest but most overlooked contributions of the university reading clinic. Literacy research has shown that parents are willing, able, and want to help in the literacy development of their children (Neuman, Hagerdorn, Celano, & Daly, 1995). Based on family-literacy research, Victoria Purcell-Gates (2004) concluded that “intervention programs that target specific strategies for parents to use with their children around reading and writing are effective in improving children’s achievement in school in areas directly related to those strategies” (p. 866). Reading clinic literacy strategies, when properly described to the parents, are an example of such an intervention. Goldenburg (2004) claims this type of help and involvement is typically accomplished by parents “on their own or in collaboration with schools, to help children succeed academically” (p. 1652). While much research has been focused on the help parents receive from schools, less current research focuses on how parents perceive and/or benefit from assistance received at university reading clinics.

The researchers of this study believe teacher educators, classroom teachers and administrators must act to ensure that parent partnerships are addressed in preservice education as well as in the professional development of preservice teachers. While preservice teacher training and ongoing professional development of teachers have emphasized understanding of the content and process of learning, Wylie (1994) suggests that “working with parents translating the work of the school into the terms of the home and vice versa, is the next frontier to be crossed” (p.4).

As many universities question the validity of the time, effort, and money associated with reading clinic experiences (Morris, 2003), the benefit community stakeholders receive from university reading services must be explored. Perhaps this is an integral way the university can meet a major tenet, service.

While the contributions of the reading clinic to teaching and research are well-documented, the role of the reading clinic as a service branch of the university must be investigated, revealing how parents perceive and benefit from the services of the reading clinic and how such services impact literacy interactions in the home. There is a need for researchers and teacher educators to help pre-service teachers understand the multiple literacy environments of the children's homes and consider how to use this information to foster effective home and school interactions (Morrow, 1999; Weinberger, 1996).

Review of Literature

The importance of parental beliefs/attitudes and literacy development is well documented. K-12 schools that have high success rates usually also have high rates of parental involvement (Darling & Hayes, 1996). Most parents perceive education to be important and want to help their children read, but many often are not sure how to teach reading or help their children with literacy development (Cunningham & Allington, 2003). In a qualitative study of parental perceptions in a kindergarten at a university-based program, researchers found parents perceived they had a crucial role in helping their children learn to read and write (Bruneau, 1989). University reading services are one way parents can seek literacy support for their struggling, at-level, or above-average reader.

Moreover, parents' perceptions, values, attitudes, and expectations play an important role in their children's attitudes toward reading (Snow, Burns, & Griffin, 1998) and subsequent literacy development. Parental beliefs and educational expectations are considered an important component in school success of children (Alexander & Entwisle, 1988). In a research study, Link (1990) found that many parents view themselves as a reading model for children, as well as the provider of materials for reading and opportunities to read. Parents who hold such beliefs frequently bring these perceptions to fruition. In another study of parental perceptions, Gill and Reynolds (1996) found a moderate correlation between parental beliefs/expectations and children's academic achievement. This was especially true for reading and math. Therefore, parental perceptions and subsequent involvement are related to student success in literacy.

University reading services certainly have the opportunity to impact and/or change parental perceptions and hopefully have a positive impact on the literacy development of many children. For example, parents who view the reading clinic as important may bring their children regularly, complete home/clinic assignments, and work with the tutor. All of these actions, based on the parents' perception of the clinic as an important entity surely will have an impact on the literacy development of children.

The university reading clinic is rooted in the development of teacher education in higher education. Federal funding for reading research which grew dramatically in the second half of the 20th century was rarely marked for clinical endeavors. Perhaps because funding priorities have driven the research and reputations of many reading professors at research institutions, scholars with an interest in hands-on clinical work have often shied away from this mode of inquiry (Morris, 2003). Clinic supervision requires a pragmatic attention to detail and the ability to work well with others. Unfortunately, it was often viewed by tenure-track faculty as a time-consuming, energy-sapping obligation, and thus was often handed over to graduate students. According to Morrow (1999), clinical work in reading lacks status at many universities, often leading to its neglect or demise.

Morrow (1999) noted that reading clinics and clinical courses require additional institutional resources. For example, classroom space is needed to tutor the children and host a clinic resource center. Faculty release time or secretarial help is also important and needed to recruit children, talk with parents, reshelv books, and mail reports. To add to the saga, additional clinical supervisors are needed in teaching practicum if teachers-in-training are to receive necessary guidance and feedback (Morris, 2003). Due to the decline of funding, one may understand how the dean of a college of education could have less than enough enthusiasm for supporting a reading clinic. These concerns have been prevalent in the past and still are apparent today.

This study examined how parents perceive the services of the reading clinic for two reasons. First, a vast amount of research suggests that parents' attitudes and beliefs about reading have a major impact on the literacy development of children (Baker, Serpell, & Sonnenschein, 1995; DeBaryshe, 1995; Snow et al., 1998; Spiegel, 1994). Given this information, it is essential for clinics at universities to have a clear understanding of how parents perceive the services of the clinic. Second, some colleges (for various reasons) have lost, are losing, or face the possibility of losing their reading clinics. Some are choosing to remove this component of teacher education altogether. Others institutions are removing this component from all but one course, while others simply have college students find a student to assist without supervised guidance or feedback (Morris, 2003). Data from multiple stakeholders (including parents) showing what valuable service clinics have offered and continue to provide will be useful when university administrators are contemplating the future of the university reading clinic. If reading clinics are not readily available, parents may be without a valuable resource to help their children succeed.

Research Question

In order to explore the impact of university reading services to the community, this study explored the following research question: What benefits do parents perceive as a result of their children's participation in university reading services?

Participants and Data Collection

Two universities in a Midwestern state participated in this study. Participants included 48 parents, whose children were involved over several semesters in an undergraduate university reading clinic program servicing 1st through 8th grades. Clinics at these two institutions are conducted at the public school or at the university. The college students providing the services were part of a reading methods course where each student was assigned an elementary-aged child with whom to work. Tutoring was held a minimum of 12 sessions over the course of the semester, for hour-long increments. Each college student worked individually with the same child throughout the semester. After an in-depth reading assessment, instruction was built to meet the needs of the individual students. The typical framework used for each session was based on a modification of Walker's Model, consisting of familiar text, guided contextual reading, skills and strategies, and personal reading/writing (Walker, 2004). College students contacted parents before services began. Not only did this introduction set the tone for upcoming sessions, but it also helped both the parent and college student share crucial information. Throughout the reading clinic, students communicated with parents, sharing the child's progress and tips for use at home. At the conclusion of the sessions, the college students scheduled a parent conference, actively involving the school-aged child. This gave the parents the opportunity to witness the progress of their children, ask questions, and interact with the tutor. During this conference, the child usually demonstrated a strategy that had been learned in tutoring thus reinforcing the strategy for the child and helping the parent understand an effective method to use at home. Moreover, a detailed parent report was sent to all parents at the end of the tutoring sessions. This report included results of assessment data, instructional interventions (thorough descriptions of effective strategies and techniques used in the reading clinic), and further suggestions for home practice, including a book list.

At the conclusion of each semester, parents completed a survey that included open-ended questions as well as statements, answered using a Likert Scale (see Appendix). This survey sought to determine how parents perceived the effect of their children's involvement in a university reading clinic. This collection process was repeated for three semesters.

Data Analyses

Once parents completed a survey (see Appendix) at the conclusion of the tutoring sessions, results were compiled and analyzed. The numerical data, collected with a Likert Scale, is summarized in Table 1. For each of the 11 statements (using a Likert Scale), the mean, standard deviation, high score, and low score were calculated. This revealed how parents felt about each statement. While the mean score for each statement revealed the average score (or central tendency of the distribution), the standard deviation showed how dispersed the scores were from the mean (See Table 1). Finally, scores were rank ordered for each question from high to low. The high score and the low score were reported to help understand the range of the scores found for each question on the Likert-Scale survey (See Table 1).

The open-ended data were analyzed through qualitative measures by identifying categories emerging from the raw data, a process known as “open-coding” (Strauss & Corbin, 1990). The responses were read and reread by the three researchers to identify categories. During the subsequent analysis, these categories were modified and/or replaced. Differences in category identification were resolved by discussing the data until a consensus was reached. The categories identified indicated what types of impact the reading clinic may have had on parental perceptions.

Results

Findings indicated that parents perceived the reading clinic to be an extremely beneficial service not only to their own children, but to the entire community. Numerous services (seen as benefits to children), offered by the clinic appear repeatedly in the open-ended questions. Both the qualitative and quantitative data demonstrated the impact parents perceived from the reading clinic and offered support for continuation of the reading clinic at the university. Finally, such parental input provided guidance and implications for ways to improve services to children.

As seen in the Table 1, the means for the Likert Scale statements all ranged near the “definitely” category indicating that parents perceived numerous benefits. Statements #2, #9, and #10 had the most positive response. All of the quantitative data gathered from the above statements showed that parents believe their children enjoyed the sessions, the tutors were well prepared, and the university reading services are in fact an important service to area schools and the community.

To analyze results from the open-response questions on the parental survey, the researchers used open-coding procedures as described by Strauss and Corbin (1990). Open-coding, according to Strauss and Corbin, is “the process of breaking down, examining, comparing, conceptualizing, and

Table 1. Analysis of Forced Response Statements from the Parental Survey

STATEMENT	N	MEAN	STANDARD DEVIATION	HIGH SCORE	LOW SCORE
#1	48	1.79	1.24	5	1
#2	48	1.48	1.03	5	1
#3	48	2.08	1.13	5	1
#4	48	2.00	1.23	5	1
#5	48	2.10	1.34	5	1
#6	48	1.58	1.10	5	1
#7	48	1.51	1.12	5	1
#8	48	1.66	1.12	5	1
#9	48	1.45	0.94	5	1
#10	48	1.48	0.96	5	1
#11	48	1.52	1.07	5	1

1=Definitely 5=Not At All

categorizing data” (p. 61). The open-coding portion of the data analysis began by conceptualizing the data obtained from the surveys by giving names to information gathered. Next, data were compared with previous data so that similar data could be given the same name. Following the conceptualizing stage of data analysis, categorizing of the data began. Categorizing data began as the researchers stepped back from the information and asked, “What does this seem to be about?” (p. 66). Categories were given names by the three researchers who read and reread the parental responses, thus providing categories. During subsequent analysis, these categories were modified and/or replaced. Differences in category identification were resolved by discussing the data until consensus was reached.

The researchers used the triangulation approach, to establish the credibility of the categories. Cross-validation sought regularities in the data by comparing the different participants [parents’ surveys] to identify recurring results. Researchers based the categories on Denzin’s definition of triangulation, which includes a comparison of the results by multiple independent investigators. The ability to produce similar categories/results from different times or methods enhanced the credibility of the data (Gay & Airasion, 2000).

Findings indicated that parents perceived the reading clinics to be an extremely beneficial service not only to their own children, but to the entire community. Four main themes, two themes per each of the open ended questions, emerged from the data: confidence/self-esteem, general improvement, teacher preparation, and service to the community. The following is a

discussion of the open-ended survey questions and the themes that emerged as a result of the open-coding procedures utilized in the current study.

Question #1: Specifically, how has your child benefited from the reading tutoring? Please list examples.

Qualitative analysis from this question revealed the emergence of two main categories: 1) University reading services build confidence and self-esteem in the children served; and 2) University reading services lead to a general improvement in students' reading, including phonics.

Comments by parents indicated that the tutoring sessions were "confidence builders" which in turn built self-esteem and allowed students to view themselves as "readers." One parent wrote, "At the end of the school year, my son had become discouraged about reading. The tutoring program has excited and encouraged him. While he's not a real reader yet, he now at least believes that he will be one soon." Another parent commented, "I would say that, above all, my child has benefited the most due to an extreme boost in her confidence regarding reading."

Comments that researchers coded under the "general improvement" theme included such inexplicit annotations as: "He's a better reader," and "His reading has improved." It is also important to note that many parents indicated improvement with word decoding and phonics skills as a result of the university's reading services, even though the precise terms such as "phonics" and "word decoding" were never used by the parents. Examples of such comments included: "My child has a better knowledge of vowels," and "She can sound out and figure out the words better."

Question #2: What are your overall thoughts about the reading tutoring project made available to your child by a college? Do you think this course requirement is important to future teachers?

The open-coding of the responses to this question also revealed two main categories: 1) University reading services provide a crucial, much-needed community service; and 2) University reading services are important for future teacher preparation.

Parents consistently noted how important university reading services are to teacher preparation and how such a service prepares pre-service teachers to become skilled practitioners. One parent noted, "Yes, I believe it helps future teachers understand that each child has his/her own way of learning and trying to incorporate all of the different experiences with the tutoring project can only make their classroom experience a successful one."

In addition to teacher preparation, parents readily remarked how university reading services provide vital community service to areas surrounding the university. When few other viable options exist to find literacy assis-

tance, university-reading services fill the void. One parent noted, "I think it is fantastic and affordable. Sylvan and other programs didn't seem to help my child as much as this one. It is a win-win situation."

In conclusion, themes identified in the open-ended questions seem to corroborate the response of the Likert Scale statements. As a result of university reading services, parents tend to believe their children not only gain a more positive attitude toward reading, but also that the program improves overall proficiency. For the college tutors, parents perceive university reading services as an integral part of teacher preparation. In addition, parents perceive such services as a vital service to the community.

Discussion

Because of the university's service mission and since many colleges and universities have lost their reading clinics in recent years (Bates, 1984), the impact of reading clinics on multiple stakeholders must be examined. The current study examined parental perceptions of reading clinics and illustrated the impact the clinic offers, as seen through the lens of an often overlooked stakeholder: parents of children in reading clinics. Such information can be used as one piece of support for retention, reinstatement, or introduction of a reading clinic at a college or university. As an institution is making decisions about the future of the reading clinic and how to improve literacy services, information such as the parental perspective of the clinic is an important consideration.

Parents believed their children not only gained a more positive attitude toward reading, but improved in overall proficiency. For the college tutors, parents perceived university reading services as an integral part of teacher preparation. Additionally, parents perceived such services as an integral service to the community.

The principal objective of the study was to investigate the perceptions parents have when their children are involved in a reading clinic with teacher candidates serving as tutors. The one-to-one experience provides an effective intervention for the struggling reader. The children who participated in the reading clinic as well as their parents were candid in expressing positive experiences.

Children benefit from the program, as do the college students who have a chance to apply what they have learned in the university classroom. As future teachers, they will be more informed about how to help children with the reading process and reading instruction. As a tutor in the reading clinic, teacher candidates are valuable to the community and the school while actually applying the knowledge learned during their course work.

In the event a student may not make sufficient progress, the supervisor

helps the tutor modify the intervention. This coaching often includes explicit modeling of subtle aspects of intervention. For example, if a child read with inadequate fluency, the supervisor might model how to use echo reading: "When her reading starts to get choppy, don't be afraid to begin some echo reading. You read a few lines to model. Point with your finger and read slowly enough that she can track you, remembering to read quickly enough for phrasing and expression. Then have her copy you." This immediate feedback for the teacher candidate is not only benefiting him or her, but the child as well. Such help with reading instruction which benefits their children's reading is invaluable to parents, as revealed by the findings of this study.

Most of all, parents recognized university reading clinics as a great help to their children's reading, not readily available elsewhere. Parents commented that their child's reading improved as a result of university reading services. This is a great service the university offers the surrounding community. For example, near the end of the tutoring sessions, parents participated in a student-led conference, where the student demonstrated a literacy strategy learned in clinics to the parents. Moreover, all tutors sent a letter to parents providing instructional ideas and a book list. While parents did not observe entire sessions, this would be yet another avenue to provide support for parents. Parents perceive this type of clinical support, as indicated by this research study, to be beneficial.

One parent commented, "One on one helping children is helpful to both students and teachers. Our son has enjoyed these sessions and we will recommend them to others." Schools are increasingly a focal point for developing and sustaining a sense of community. The efforts that schools are undertaking to restructure the school learning environment present opportunities to rethink and restructure home, school, and community partnerships. In short term, the beneficiaries will be the parents and the teachers, but perhaps the ultimate beneficiaries will be the children, learning to be literate in an increasingly challenging world.

Limitations

While the current findings are most encouraging, this study does come with limitations. This study examined only the natural relationships that exist between clinic and teaching factors on one hand and student performance on the other. While the relationships may be useful in planning more definitive research, and in guiding the development or maintenance of university reading clinics, these findings cannot be used to identify causes for improvement in student reading achievement. For that, systematic experimentation is needed, using control groups, randomization, and careful analyses of growth over time. This work carries other specific limitations as well. A larger popu-

lation of parents, to explore parents' perceptions, would improve the precision and trustworthiness of the present study.

This study did not take into consideration the "coaching" aspect the tutoring sessions could have provided for parents. The university clinics were solely intended for teacher preparation. It is worth acknowledging that future studies should include video tapings of the tutoring sessions to be shared with parents along with the final written report given at the end of the tutoring sessions. Also, future teachers will increasingly need to view parents as sources of learning and support. Finally, while parents completed a written interview, oral interviews (using a standard protocol) were not used due to time and scheduling issues. Oral interviews would have allowed the researcher to obtain (possibly) more rich data than from a written interview alone.

Conclusion

The current study sought to investigate the following research question: What benefits do parents perceive as a result of their children's participation in university reading clinics? With many universities losing, or facing the threat of losing their reading clinics (Morris, 2003), the current research study was an important step in the acquisition of a quantitative and qualitative data collection set used to examine parental perceptions toward university reading clinics. The data from the current study revealed that parents viewed the reading clinics as beneficial to their children in regard to improved reading ability, confidence, and self-esteem. Parents also viewed the reading clinics as being important to future teacher preparation. In addition, data analysis revealed that parents perceived the reading clinics to be a valuable service to the community.

Interestingly, the comments of parents unknowingly reinforced the latest research on the teaching of reading (Snow et al., 2005) as well as the traditional three tenets of American university—teaching, service, and research. The field-based tutoring component provided an opportunity for teacher candidates to be engaged in "real world" application of course content (teaching). This is especially relevant in light of the report by Snow, Burns, and Griffin (1998) which states that "teacher-preparation programs need to do a better job of building conceptual links between classroom, clinical, and field based experiences in ways that will prepare future teachers to apply their course work and other preservice experiences to their teaching practice" (p. 219). The reading clinics, with their diverse school-aged populations, provided the university professors and students with an opportunity to research and investigate strategies used with struggling readers (research). Finally, parents consistently commented on how the reading clinics provided valuable assistance to parents and the community at large (service).

While more research is needed on the impact of university reading clin-

ics, the current study provided insight from an overlooked stakeholder—the parent. The implementation and continuation of reading clinics offers universities an overlooked avenue to meet their mission of teaching, research, and service.

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Appendix. Parental Survey

During the last semester, your child has been receiving tutoring in reading from the local college. Please respond honestly to the question. On page one; please circle the number that most nearly represents your opinion. On page two, please provide as many details as possible. This information will allow the college to continually improve tutoring services in reading.

1. Overall, my child's education has benefited from the tutoring.
Definitely 1 2 3 4 5 Not At All
2. My child enjoyed the tutoring program.
Definitely 1 2 3 4 5 Not At All
3. My child's attitude toward reading has improved as a result of the tutoring.
Definitely 1 2 3 4 5 Not At All
4. My child is reading better as a result of the tutoring.
Definitely 1 2 3 4 5 Not At All
5. I have seen my child using new ways to help his/her reading as a result of the tutoring. I can use these to help my child in reading as well.
Definitely 1 2 3 4 5 Not At All
6. I would like my child to participate in future tutoring opportunities with the university students.
Definitely 1 2 3 4 5 Not At All
7. I would recommend this program to others.
Definitely 1 2 3 4 5 Not At All
8. The length of the sessions was about right.
Definitely 1 2 3 4 5 Not At All
9. I was satisfied with the instructional activities in which my child participated.
Definitely 1 2 3 4 5 Not At All
10. My child's tutor seemed prepared, knowledgeable, and caring.
Definitely 1 2 3 4 5 Not At All
11. The reading tutoring sessions (a course requirement) that is sponsored by the university is an important service to our public schools.
Definitely 1 2 3 4 5 Not At All

Open Ended Questions

1. Specifically, how has your child benefited from the reading tutoring? Please list examples.
2. What are your overall thoughts about the reading tutoring project made available for your child by a college? Do you think this course requirement is important for future teachers?

UNIVERSITY-BASED READING CLINICS: WHERE ARE WE NOW?

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Abstract

This study surveyed universities in the United States to determine how their reading clinics function. A questionnaire was developed and sent to 45 universities soliciting information on how their clinics were set up and functioned. Thirty-five clinic directors responded by returning completed questionnaires. The findings are presented in the areas of clinic organization, operation, and assessment instruments used. The findings of this study are compared with the findings of previous studies.

The university-based reading clinic has been the subject of sincere, but sporadic study. Reading clinic directors and their undergraduate and graduate students soldier on, developing and refining assessment and instructional practices, making positive impacts on the lives of children in their communities, and providing preservice and inservice teachers with valuable training and information about how to help struggling readers. Our experience has been that there is little time to communicate with others working in clinics.

The impetus for reaching out to other reading clinics came about when we, the investigators, needed to add a doctoral component to our established reading clinic. We believed that a strong clinical experience at the doctoral level would prepare our students to establish, conduct, and improve university-based reading clinics in their post-doctoral careers. This also provided us with an opportunity to re-evaluate our own program. We were motivated by questions such as: Are reading clinics still an important part of university reading programs? How are they organized? Who is in charge? How are they funded? What assessments do they use?

We determined that a comprehensive study of university reading clinics would make a valuable contribution to the reading field. However, rather than attempting one study, it was decided to conduct two separate studies. The first study focuses on clinic organization, operational/institutional procedures, and assessment instruments/procedures. The second study (to be completed at a future date) will interview clinic directors to identify instructional practices, as well as other issues still pending as identified following the completion of the first study.

Background

University reading clinics have long been an essential element of graduate reading programs. They provide a vehicle for future reading professionals to sharpen their knowledge of assessment and instruction under the direct supervision of university faculty. They also provide services to the community by offering specialized assessment and instruction for children experiencing difficulties learning to read. It is important for university reading clinic programs, therefore, to reflect practices grounded in theory, research, and practice.

A review of the professional literature shows little recent research regarding the organization, materials, or practices of university reading clinics. The major research studies most frequently cited are dated (Bader & Wiesendanger, 1986; Bates, 1984; Irvin & Lynch-Brown, 1988). Three more recent studies have been reported: one national (Elish-Piper, 2001), which cited only 15 institutions, and two state-specific in Pennsylvania (Hoffman & Topping, 2001) and Ohio (Bevans, 2004).

The university-based reading clinic research reported by Bates in 1984 is often used as a baseline in subsequent studies. Bates surveyed 242 clinics identified in an International Reading Association (IRA) publication *Graduate Programs in Reading* (Blomenberg, 1981). He examined the organization and structure of clinics as well as the materials and equipment used. Bader and Wiesendanger (1986) replicated some of Bates' work but added new elements. They looked at grouping, affiliation of reading departments and other university departments, approaches to remediation, and the strengths and challenges of the clinic. Bader and Wiesendanger sent surveys to 200 clinics affiliated with either the College Reading Association or the International Reading Association (2002); their response rate was 75%. Irvin and Lynch-Brown (1988) also used *Graduate Programs in Reading* (Blomenberg, 1981) to establish a sample of 163 university-based reading clinics. Irvin and Lynch-Brown surveyed the clinics for organizational information, but their major focus was on the tests used in the clinics.

The studies, from the 1980s to the early years of the new millennium provide a mosaic of university-based reading clinics: a large general image

comprised of varied individual parts. This sometimes complementary, sometimes contradictory, research led us to develop our own study to bring the picture of today's reading clinics into clearer focus.

Methodology

Subjects

University reading clinics in the United States were identified through on-line searches. In order to achieve a representative geographic sampling, the International Reading Association's seven United States regional areas served as a guide for university selection, with universities identified in each region. Each university was contacted via telephone. The name, email address and telephone number of a contact person responsible for the reading clinic were requested. In all, 53 universities were contacted. If a contact person could not be identified or if that university said that they did not offer a reading clinic, then that institution was not included. The phone calls identified contact people at 45 different universities. Each of the IRA's seven geographical regions had at least four universities on the final list of universities contacted.

Survey Instrument

A questionnaire asking for specifics on reading clinic operations was constructed. Previous studies and questions about the operation of our reading clinic served as the basis for the questions on the instrument. Questions were developed that asked for descriptive information in three areas: institution (university size and degrees offered), clinic organization (classes tied to clinic, director status, size of classes, fees, and population), and clinic procedures (instruments used and tutoring information). Two reading professors and four doctoral students examined the questions for clarity. The questions were revised based on the reviewers' responses. The final questionnaire consisted of 33 closed questions. See Appendix for the questionnaire.

Procedure

The questionnaire, a cover letter, and a postage paid return envelope were sent to each of the 45 clinic contact people asking them to fill out the enclosed survey. A second mailing was sent to non-responders four weeks after the first mailing.

Results

Thirty-five clinic contacts returned the survey (78% return rate) with responses from each of the seven IRA regions. See Table 1 for a geographical distribution of the responding institutions. Of those responding, three were from private colleges or universities, four from public colleges, and 28 from

public universities. Thirteen of the institutions had 20,000 or more students attending. Thirteen institutions had 10,000 to 20,000 students. Eight institutions had fewer than 10,000 students enrolled. Eighteen of the institutions offered a doctorate in either Reading or Curriculum and Instruction with a Reading emphasis. Fifteen institutions said that the highest degree offered was a master's degree in either Reading or Curriculum and Instruction with a Reading emphasis. The remaining two institutions offered something else.

Table 1. Geographic Distribution of Participating Institutions

INTERNATIONAL READING ASSOCIATION UNITED STATES' REGIONS	No.
East	8
Great Lakes	5
Plains	5
Rocky Mountains	5
Southeast	7
Southwest	3
West	2

The remaining responses will be divided into three major categories: clinic operations, clinic assessments, and instructional delivery.

Clinic Operations

Twenty-nine clinics reported being in operation for 10 or more years. Eighteen of the universities reported that their clinics operated year around, with nine institutions reporting summer only operations. All reported that they taught clinic during the weekdays or evenings. None reported having clinics on Saturdays or weekends. Thirty-four reported that their clinic was tied to a specific course. Twenty-six of the institutions operated on-campus clinics, 17 off-campus clinics in the schools, and eight operated both on-campus and school-based clinics.

Table 2. Clinic Directors

CLINIC DIRECTOR	No.
One person assigned clinic director	32
Clinic director a tenure track faculty member	29
Clinic director a full time non tenure track employee	3
Teaching load assigned to clinic director	
3 credit hours	8
6 credit hours	12
9 credit hours	6
other	3
Directors who received additional reassigned time	12
Graduate assistant assigned to clinic	13

Responses varied on the individuals responsible for the clinic, their status, and the amount of reassigned time. Table 2 shows the responses for clinic directors.

Students required to enroll in clinics varied: 10 institutions reported clinic as required for undergraduate students, 30 for masters' students, and 3 for doctoral students. Six institutions reported that undergraduate and graduate students enrolled together; one institution required undergraduate, masters and doctoral students. Twenty-five responses reported clinic as required for graduate level certification such as a reading specialist certification, five for literacy coaches, five for reading supervisors, and four for others (i.e., diagnosticians and school psychologists). The age of the clients served by the clinics differed. Table 3 shows the age of the tutees worked with in the different clinics.

Table 3. Clinic Population Served by Reading Clinics

GRADE	No
Kindergarten	19
First through 5th grade	35
Sixth through 8th grade	25
High school	16
Adults	5

Funding to support clinics came from two sources: client fees and university support. Of the 28 clinics that reported charging fees, the majority (19) reported charging \$100 or less. Eight reported charging a fee of \$101 to \$200 and three charged more than \$200. Twenty-nine of the institutions offered some form of scholarship for clients. Thirty-two of the respondents stated that their clinic received some form of financial support from their institution. Fourteen cited receiving university financial support, 11 received college support, and 12 received department financial support. Of these, two respondents received funding from three levels: university, college, and department; four received funding from both the university and the college; five received funding from the university and the department, and five received funding from the college and the department.

Clinic Assessment

Respondents reported three broad categories of assessment measures used in clinics: standardized commercial tests, informal reading inventories, and informal measures. Table 4 lists the standardized tests reported. Table 5 lists the informal reading inventories reported.

We also found that 29 clinics reported the use of running records, 28 clinics used retellings, 26 clinics used comprehension checklists, and 24 clinics used print awareness checklists.

Table 4. Standardized Assessments Used in Reading Clinics

STANDARDIZED MEASURES	No.
Gates McGinitie	8
GRADE	1
Nelson Denny	1
Wechsler Intelligence Scale for Children (WISC III or IV)	2
Slosson Intelligence Test-Revised (SIT-R)	7
Peabody Picture Vocabulary Test-III (PPVT-III)	16
Elementary Reading Attitude Survey	18

TABLE 5. Informal Reading Inventories Used in Reading Clinics

NAME	No.
<i>Analytical Reading Inventory</i> (Woods & Moe)	8
<i>Bader Reading and Language Inventory</i> (Bader)	7
<i>Informal Reading Inventory</i> (Burns & Roe)	8
<i>Developmental Reading Assessment</i> (Beaver)	6
<i>Reading Inventory for the Classroom</i> (Flynt & Cooter)	4
<i>Basic Reading Inventory</i> (Johns)	11
<i>Qualitative Reading Inventory</i> (QRI) (Leslie & Caldwell)	14
<i>Classroom Reading Inventory</i> (Silvaroli)	2
Other (<i>Reading Miscue Inventory</i> , self constructed)	2

Instructional Delivery

Our research found that the majority of clinics (27) provided one-on-one tutoring. Twelve clinics provided small group instruction (two to five students) and only one clinic reported using groups of six or more students. Five clinics reported using some combination of individual and group instruction.

Discussion

The returned surveys supplied an overview of reading clinic operations at 35 different institutions. One limitation is that this study used survey responses to gather information. As with any survey, the information reflects what was reported. An additional limitation is the number of respondents in the study. A larger sample might have yielded different results. Another limitation is that this study sought only descriptive information on clinics. This limits conjecture on why something exists the way it does. With these limitations, this study supplied data on clinic operations. To address the results as they relate to the inquiry topics, the discussion will have three parts: clinical operations, clinical assessments, and instructional delivery.

Clinic Operations

Clinics differ in how they operated and are organized. We found that most are built around a specific class and have a tenured or tenure track faculty member in charge, who receives some form of reassigned time for clinic direction. Fewer than half the clinics reported that there was a graduate assistant assigned to the clinic. These findings differ from those reported by Bates (1984). Bates reported that most clinics were directed by a part-time director and staffed by graduate students. Our findings are consistent with those reported by Elish-Piper (2001), who reported that all but one of the clinics were directed by a faculty member.

We could not determine whether the venue of clinical services has changed over the years. We found clinics operated on and off the university campus, with some universities operating both on campus and off campus clinics. Bevans (2004) reported that 40% of the clinics operated on campus and 60% of the Ohio universities operated off campus clinics. She does not, however, give any figures on whether clinics were operated in both sites. None of the previous studies reported figures on whether clinics were on campus or off campus.

Funding of a clinic has been an aspect reported in the different studies. We found that all responding clinics reported receiving some form of help from the university, college, department, or other sources. Bates (1984) reported that only 40% of his responses cited receiving university support and 40% received departmental support. He did not cite which clinics received support from both. Elish-Piper (2001) reported that a majority of her respondents cited receiving support from the university, college or department. Again a specific breakdown was not given. Bader and Wiesendanger (1986) did not report specific sources of funding; they did state that clinic directors cited inadequate budget as a major problem.

In this study, the majority of clinics (28 of 35) reported charging some form of client fees. In contrast, Elish-Piper (2001) reported that 53% of the 15 clinics she reported on charged clients' fees. Bates (1984), in turn, reported that only 36% of the clinics charged client fees. Bevans (2004) reported that all on-site clinics charged a fee. We found that the majority of the clinics (28 of 35) offered scholarships. Only the Hoffman and Toppings (2001) study also reported scholarships (25%).

Clinic Assessments

While the operational nature of clinics does not appear to have altered significantly, the assessments have changed to reflect newer research and practices.

As reported in the results section (see Table 4), we found only a quarter of the clinics stating that they administered a reading achievement test. In

contrast, Irvin and Lynch-Brown (1988) reported that 74% used reading achievement tests with the most frequently cited reading survey tests being the *Gates-MacGinitie Reading Test* (MacGinitie & MacGinitie, 1989) and the *Nelson Denny Reading Test* (Brown, Fishco, & Hanna, 1993). Hoffman and Toppings (2001) reported that only one clinic used the *Gates-MacGinitie Reading Test*. From this, we concluded that the use of standardized tests has reduced over time. However, the same two tests mentioned in 1988 were mentioned in our study.

One aspect that has appeared to solidify is the use of some form of informal reading inventory (IRI). We found that all of the clinics reported using at least one informal reading inventory (see Table 5). Hoffman and Topping (2001) reported 81% of the clinics in Pennsylvania used an IRI. Bevans (2004) found that only 41% of the Ohio clinics used IRIs. Irwin and Lynch-Brown (1988) reported that of 138 clinics, the two most popular IRIs were the *Classroom Reading Inventory* (Silvaroli, 1979) and the *Informal Reading Inventory* (Burns & Roe, 1980). While both of these IRIs were mentioned by our respondents, they were not the most popular. This could be either a reflection of newer inventories on the market that are better suited for clinic use or simply a greater number of inventories on the market leading to increased variety.

We found that one quarter of the responding clinics measured general intelligence (see Table 4); using the *Slosson Intelligence Test-Revised* (SIT-R) (Slosson, Nicholson & Hibpshman, 1996), the *Wechsler Intelligence Scale for Children-III* (Wechsler, 1991) or the *Wechsler Intelligence Scale for Children-IV* (Wechsler, 2003). In contrast, Irvin and Lynch-Brown (1988) reported that 48% used the SIT-R and 42% used the *Wechsler Intelligence Scale for Children-Revised* (Wechsler, 1974). Elish-Piper (2001) reported that two clinics used the SIT-R and the *Wide Range Achievement Test* (Jastak & Jastak, 1978). In Pennsylvania, Hoffman and Toppings (2001) found that 31% of the clinics used the SIT-R.

The range of kinds of tests used in clinics appears to have changed over the years. Compared to previous years, we found a smaller range of tests and measures being used for diagnostic purposes. In contrast, Bates (1984) reported tests that included visual and auditory ability (26% and 24%), and silent and oral reading (31%). The Irvin and Lynch-Brown (1988) study addressed the specific tests used in the reading clinics. They found that a wide range of tests used in different categories, including tests of perceptual skills such as the *Developmental Test of Visual Motor Integration* (Beery, 1967) and the *Bender Visual Motor Gestalt Test* (Bender, 1938).

Today's reading clinics incorporate many informal assessments in their diagnostic batteries. We found wide spread use of running records, retellings, comprehension checklists, and print awareness checklists. Elish-Piper (2001)

and Hoffman and Topping (2001) also report the use of running records, retellings, interviews and observational checklists. Bevans (2004) reported the use of criterion-referenced tests (16%), locally-designed assessments (36%), and student work (56%) to assess students.

Instructional Delivery

We found, as did the earlier studies, a predominance of individual and small group instruction. In Bates' (1984) study, 89% provided individual tutoring and 71% provided small group instruction. Bader and Wiesendanger (1986) found 46% provided individual tutoring and 53% used small group instruction. In Ohio, Bevans (2004) found that 44% of the clinics provided individual tutoring, 8% used small groups, and 48% use a combination of individual and group tutoring.

Conclusions

University-based reading clinics have always had multiple missions: service to the community, preparation and professional development of teachers, and research. Subject to the limitations of this study, the data gathered in this study suggests that reading clinics still exist as viable entities that differ depending upon the institution and the role that institution wants the clinic to play. One of the reasons for conducting this study was to gather current information that could be used to re-evaluate, and possibly modify, our reading clinic and program. Another reason was to determine the role reading clinics played in different university reading programs. The data gathered suggest that reading clinics are important components of reading programs and organized around specific classes. There is some variation, however, in the clinics' organization, attendance, and fees.

Based on the authors' experiences at different universities, some of the information gathered surprised us. First, none of the universities surveyed offered reading clinic on Saturdays. Second, under half of the clinic directors reported having a graduate assistant assigned to them. Finally, there was a surprising degree of convergence in the assessment instruments reported. Given the number of reading and learning related tests existing (Barr, Blachowicz, Katz, & Kaufman, 2002), the number of instruments cited was relatively small. Since the data gathered in this study was descriptive, we will not attempt to speculate what the reasons are for any of these pieces of information.

This research, in addition to supplying information on clinical practices, also raised a series of questions that warrant additional study. Are university-based reading clinics changing, as suggested by Cassidy and Hanes (1992)? Specifically, what are the instructional models, practices, and materials currently used in university-based reading clinics? How selective are reading

clinics in accepting students for diagnostic and/or instructional programs? That is, do reading clinics limit participation to students who are having difficulty reading or do they accept all applicants? Also to be investigated: do the findings of the National Reading Panel or the implementation of No Child Left Behind cause a resurgence in the attention paid to university-based reading clinics?

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Appendix. University Reading Clinic Questionnaire

QUESTION

1. What is your type of institution?
 - Private college
 - Public college
 - Private university
 - Public university

2. What is the size of your institution?
 - Under 5,000 students
 - 5,000 – 10,000 students
 - 10,000 – 20,000 students
 - More than 20,000 students

3. What is the highest degree your college or university offers in reading?
 - Masters in reading
 - Masters in curriculum and instruction with reading emphasis
 - Doctorate in reading
 - Doctorate in curriculum and instruction with emphasis in reading
 - Other _____

4. How long has your clinical/tutoring program been in operations?
 - Less than 1 year
 - 1 – 5 years
 - 6 – 10 years
 - More than 10 years

5. Where is your clinic/tutoring program held?
 - On campus
 - Off campus

6. Is the reading clinic/tutoring tied to a specific course?
 - Yes
 - No

7. Who is required to take the reading clinic/tutoring course?
 - Undergraduates
 - Masters students
 - Doctoral students

8. What programs, endorsements or certifications require the course? (Check all that apply.)
 - None
 - Reading endorsement
 - Special education endorsement
 - Literacy coach
 - Master Reading Teacher
 - Reading specialist
 - Reading supervisor
 - Other _____

9. What grade levels does your clinic/tutoring program serve? (Check all that apply.)
 - K
 - 1
 - 2
 - 3
 - 4
 - 5
 - 6
 - 7
 - 8
 - 9
 - 10
 - 11
 - 12
 - Adult

10. What types of instructional grouping are used in your reading clinic/tutoring program?
- Individual instruction (1:1)
 - Small group (2-5)
 - Large group (6 or more)
 - Combination of above
11. How frequently is your reading clinic/tutoring program offered?
- One semester/year
 - Two semesters (fall, spring)
 - Summer only
 - Year round
12. What is the average number of children served by the reading clinic/tutoring per semester/session?
- 1 – 10
 - 11 – 20
 - 21 – 30
 - 31 – 40
 - More than 40
13. Do children sometimes return for additional reading clinic/tutoring sessions?
- Yes
 - No
14. How are clients referred to the reading clinic/tutoring program? (Check all that apply)
- Classroom teachers
 - Reading specialists
 - Parents
 - Self
 - Other _____
15. What university population best characterizes your clinic tutor enrollment? (Check all that apply)
- Masters in reading
 - Masters in curriculum and instruction with emphasis in reading
 - Doctorate in reading
 - Doctorate in curriculum and instruction with emphasis in reading.
 - Other _____
16. What is the average number of university undergraduate students involved in your reading clinic/tutoring program per year?
- None
 - 1 – 10
 - 11 – 20
 - 21 – 30
 - 31 – 40
 - More than 40
 - N/A
17. What is the average number of university Masters students involved in your reading clinic/tutoring program per year?
- None
 - 1 – 10
 - 11 – 20
 - 21 – 30
 - 31 – 40
 - More than 40
 - N/A
18. What is the average number of university doctoral students involved in the reading clinic/tutoring per year?
- None
 - 1 – 10
 - 11 – 20
 - 21 – 30
 - 30 – 40
 - More than 40
 - N/A
19. What is the faculty status of the reading clinic director?
- Part-time, temporary
 - Full-time, non tenure
 - Full-time, tenure track
 - Other (specify) _____

20. What teaching load is assigned for the clinic director?
- 3 credit hours
 - 6 credit hours
 - 9 credit hours
 - Other _____
21. What amount of reassigned time, not affiliated with a course, is allocated for the reading clinic/tutoring program?
- 3 credit hours
 - 6 credit hours
 - 9 credit hours
 - Other _____
22. What commercial reading assessments are used in your reading clinic/tutoring? (Check all that apply)
- Burns and Roe *Informal Reading Inventory* (Houghton Mifflin)
 - Johns *Basic Reading Inventory* (Kendall-Hunt)
 - Leslie and Caldwell *Qualitative Reading Inventory(QRI-III or IV)* (Allyn and Bacon)
 - Silvaroli *Classroom Reading Inventory* (McGraw Hill)
 - Bader *BADER Reading and Language Inventory* (Pearson: Merrill, Prentice Hall)
 - Woods and Moe *Analytical Reading Inventory* (Prentice Hall)
 - Other _____
23. What standardized reading tests do you use?(Check all that apply)
- Gates-McGinite Reading Test
 - G.R.A.D.E (American Guidance Service)
 - Nelson Denny Reading Test
 - Other _____
24. What informal reading assessments do you use? (Check all that apply)
- Running records
 - Retellings
 - Comprehension checklists
 - Print awareness checklists
 - Other _____
25. What other assessments do you use in the reading clinic/tutoring? (Check all that apply)
- Wechsler Intelligence Scale for Children (WISC-III or IV)
 - Slosson Intelligence Test-Revised (SIT-R)
 - Peabody Picture Vocabulary Test-III (PPVT-III)
 - Elementary Reading Attitude Survey ("Garfield")
 - Writing assessment
 - Spelling assessment
 - Other _____
26. In what ways do you use computer technology in your reading clinic/tutoring program? (Check all that apply)
- Don't use
 - Assessment
 - Skills reinforcement
 - Writing
 - Internet research
 - Other _____

27. Who provides clerical support for the reading clinic/tutoring program (contacting parents, answering phones, sending out reports, etc.)? (Check all that apply)
28. How is feedback provided to tutors regarding their teaching lessons? (Check all that apply)
29. What are the times of day during which you offer your clinic/tutoring? (Check all that apply)
30. What is the source(s) of funding for your reading clinic/tutoring program (including salaries and materials)? (Check all that apply)
31. How much do you charge students for the services provided by the reading clinic/tutoring program per semester?
32. Are scholarships provided?
33. Would you consent to a phone interview for the purpose of gathering in-depth descriptors of the institution, student placement, program design, materials, evaluation procedures, and staffing and administration?
- Director
 - Graduate assistant
 - Undergraduate students
 - University staff
 - Other _____
 - Mini conferences with supervisor
 - Class discussions
 - Written responses from supervisor
 - Other _____
 - Daytime
 - Evenings
 - Saturdays
 - University
 - College
 - Department
 - Client fees
 - Other _____
 - Less than \$100
 - \$101 — \$200
 - \$201 — \$300
 - \$300 or more
 - Yes
 - No
 - Yes
 - No

USING THE *CRITICAL READING INVENTORY* TO GUIDE DIFFERENTIATED INSTRUCTION

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Abstract

This paper provides a highlight of one of a series of profiles in comprehension obtained from an analysis of student responses to an informal reading inventory designed to assess higher-level thinking. In addition, an investigation of one student's performance on the inventory is discussed with specific attention to the differences between the student's low-level and higher-level comprehension. The analysis of the student's performance is then used as a basis for the creation of instructional plans to guide a classroom teacher's use of differentiated instruction.

The love affair of teachers with questioning dates back at least to the time of the ancient Greeks whose question-based teaching technique came to be known as the Socratic Method. It appears that in many classrooms, the practice of using thought-provoking questions is indeed a thing of the past. Researchers who have analyzed teacher-student interactions in classrooms have reported one consistent and disconcerting finding. When teachers assess the reading comprehension of their students, they tend to use a large proportion of questions that require factual recall of information included in the text (Applegate, Quinn & Applegate, 2002; Barr & Dreeben, 1991; Cazden, 1986; Durkin, 1979; Goldenberg, 1992). As Almasi and Gambrell (1994) have pointed out, this type of question requires little more of students than recitation. Recitation occurs when the answers to all questions under consideration are already known; all that is left to the students is to commit those answers to memory.

However, not all teachers rely on low-level questions; in fact, Ruddell (1995) identified teachers who use highly effective questioning as *influen-*

tial teachers. These influential teachers help students become absorbed in the text by encouraging them to live through the experiences of others and to analyze the decisions that characters make. Teachers such as these who use higher order questions to motivate and engage their students in peer-led discussions are likely to find that their students read more (Guthrie, Schafer, Wang, & Afflerbach, 1995). Research comparing students whose teachers encouraged them to explore ideas to those students who engaged in teacher-led recitations consistently report findings that favor children who explore literature through discussion. Their discussions tend to be more extensive and of higher quality and complexity (Almasi, 1995; Eeds & Wells, 1989) and they are often more interested in reading and more highly motivated to read (Mathewson, 1985; Ruddell & Unrau, 1997).

The *Critical Reading Inventory* (Applegate, Quinn, & Applegate, 2004) is an instrument designed to distinguish between students who think and those who recite by assessing comprehension at three distinct levels: Text-based, High-level Inference and Critical Response. By definition, Text-based items include those that are answered verbatim in the text or those that are so close to literal as to be obvious. High-level Inferences, on the other hand, call for readers to link personal experience with the text and draw a logical conclusion. Answers to these items require significantly more complex thinking than low-level inferences. Critical Response items call for readers to take a stance and defend an idea related to the actions of characters or the outcomes of events. They differ from High-level Inference items in that they are usually directed toward broader ideas or underlying themes that relate to the significance of the passage. While High-level Inference items are directed toward a specific element or problem in the passage, Critical Response items require readers to discuss and react to the underlying meaning of the passage as a whole (Applegate, Quinn, & Applegate, 2002).

Since the *Critical Reading Inventory* was primarily designed to help teachers and reading specialists assess students' reading ability, strengths, needs and interests, field testing of the test materials was conducted by 22 practicing reading specialists who had administered a minimum of 100 inventories each year. Seventy children participated in the initial tryout. Based on feedback from the teachers and reading specialists as well as a detailed analysis of results, numerous adjustments were made in passages and questions. This revised version was field-tested under supervision of two of the authors by fifty-three graduate students completing their reading specialist certification. The analysis of these data led to a final adjustment to passages, questions and responses.

We have found that using higher-level questions in the *Critical Reading Inventory* provides tremendous insight into students' thinking habits that can not be obtained through text-based or low-level inference items. To demon-

strate, we will provide a brief summary of one of the stories which we will use later in the paper to demonstrate differentiated instruction (see Fig. 1).

Figure 1. Summary of *The Race*

Spencer is the fastest cat in the jungle and has frustrated all the other animals because of his continuous bragging about his success. It has reached the point where none of the animals will agree to race with him. When a new family of cats arrives, they are greeted by a bragging Spencer and a challenge to race. The father of the new cat family politely declines, but suggests that his daughter Annie would be more than willing to race. Annie is excited about the race, apparently hopeful that this type of play will result in some new friendships. So Spencer and Annie race and it looks as if Spencer will again be the winner. Towards the end, Annie speeds up and wins the race. Spencer is upset and asks for a rematch but no matter how often he tries, Annie wins. All the animals cheer for Annie and treat her as the new reigning champion. At first Spencer appears overwhelmed but he returns the next morning claiming that no one can jump higher than he can. The other animals groan in recognition of the fact that nothing about Spencer has changed.

One of the High-level Inference questions used to assess comprehension of this passage is: "Why would Spencer want to race against Annie again?" One student responded, "So he could win and still be the fastest." This is a correct response because if Spencer won a rematch, he could still claim to be the fastest runner. Another student responded, "He wanted to be the fastest and he wanted the title back." Again this response includes a logical idea that is connected with information from the story. However, one student responded, "He needed to practice because practice makes you better." Here we find a statement that includes a certain amount of logic, but is not connected to the story at all; this response relies solely on background information. Another example of this type of error is: "He probably wasn't ready." Again, there is absolutely nothing in the story to suggest that Spencer was not ready. In fact, this reader is ignoring the fact that Spencer was initially winning the race. It seems that both of the latter readers are searching their minds for a plausible explanation without alluding to the details of the story.

As we studied the range of thousands of student responses like these to *Critical Reading Inventory* items, we detected eight relatively distinct profiles in comprehension that we believed could provide teachers with insights in providing instruction that could foster higher-level thinking. Table 1 provides a highlight of these profiles as well as a list of interventions that have proven to be relatively successful with students who fit the profile in question (Applegate, Quinn, & Applegate, 2006).

Table 1. Profiles and Instructional Interventions

PROFILES	DESCRIPTION	INTERVENTION
Literalists	Look for all answers to all types of questions to be stated in the text.	Question-Answer Relationship (QAR) (Raphael, 1982); Question-the Author (QtA) (Beck, McKeown, Hamilton & Kucan, 1997); Pre-reading using high-level themes linked to students' experiences.
Fuzzy Thinkers	Provide vague, ambiguous or trite responses.	Story Map (see Beck & McKeown, 1981); classification and concept sorts (Bear, Invernizzi, Templeton & Johnston, 2004); Semantic Feature Analysis (Johnson & Pearson, 1984); Think-alouds (Davey, (1983); Venn Diagrams
Left Fielders	Generate unpredictable ideas that seem to have no real connection to the text.	Story structure activities; Think-alouds; context clues; detecting relationships; classification, induced imagery (Gambrell, Kapinus & Wilson, 1987)
Quiz Contestants	Provide answers that are logically correct but disconnected from the text.	Question-Answer Relationship QAR; Anticipation Guides Readence, Bean and Baldwin (1998); enumeration maps; concept mapping, classification; multiple-choice test-taking skills
Politicians	Use slogans or platitudes that sound meaningful but are not text-connected.	Modeling and Think-alouds (Davey, 1983); story structure activities; Venn diagrams; Discussion Webs (Alvermann, 1991)
Dodgers	Change the question and then respond to the new one.	Question-Answer Relationship QAR; vocabulary development; List-Group-Label (Taba, 1967); plot relationship charts; prediction modeling; sensory imaging
Authors	Create their own story lines and story details.	Story Impressions (McGinley & Denner, 1987); Discussion Web Literature Circles (Daniels, 1994); High level theme-based pre-reading
Minimalists	Provide no elaboration of responses, resulting from lack of confidence or fear of failure.	Classroom environment that is safe and supportive; student journaling; dialogue journals; Question-the-author (QtA); Sketch to Stretch (Harste, Short & Burke, 1988)

Sample Analysis

For the purpose of this paper, to demonstrate how the diagnostic information obtained from the *Critical Reading Inventory* can help provide differentiated instruction, I will focus on one case of a student who demonstrated several Quiz Contestant responses similar to the responses I discussed earlier. I will again provide a brief summary of two stories from the *Critical Reading Inventory* as well as responses to four inference questions given by this student whom we will refer to as "QC" (Quiz Contestant). The first story, *The Championship Game* is summarized below.

Figure 2. Summary of *The Championship Game*

This is a story of a confident young girl who, along with her teammates, is preparing for the championship softball game. Jill is very critical of her teammates during the warm-up session and confident of her position as the team's best player. Then during the game, she has several opportunities to make a major contribution to the team but she is unsuccessful. Each time, however, she makes an excuse which directs the blame for her failures elsewhere. After a very hard fought game, Jill's team finally wins and all of her team members are thrilled beyond words. But Jill can think of nothing other than having done so poorly in front of all the people who came to watch the game.

During the comprehension assessment, QC was asked whether he thought that Jill and her teammates were good friends or not and he replied, "Yes, they must be because they are all on the same team." Here we see a seemingly logical response that ignores all of the clues in the text that suggest that Jill is not good friends with her teammates. When QC was asked how important winning the championship game was to Jill, he responded, "It was the championship game and everybody wants to win the championship." Again, he demonstrates the tendency to answer based on background knowledge and ignore textual information that suggested Jill was far more worried about her own play than her team winning the game.

QC demonstrated similar difficulties with higher-level inferences following his reading of a passage entitled *The Vacation*. A summary is provided below.

Figure 3. The Vacation

Juan and his family are excitedly waiting for their first family vacation, a trip to Florida. What makes it so special is that they have never flown before. When the father comes home with the terrible news that he no longer will have overtime pay, the family is devastated. It was the overtime pay that they planned to use for the plane tickets and hotel. Then Juan's mother contacts her brother and informs the family that he has offered the use of his van for their trip. In addition, his wife's sister lives in Florida and has invited the family to stay with them. Everyone is excited but Juan. During the drive to Florida, the family members stop to see various sights, but Juan remains in the van sulking. During one of these stops, the family spots an alligator and Juan's sister runs back to get him. But by the time he arrives, the alligator has gone. They return to the van and no one says anything for quite some time. Then just as Mom started to speak to Juan, he interrupts and tells her that he knows that he's been missing out on a great time and resolves to join in the family's fun.

When QC was asked an inference question as to why Mrs. Ruiz hadn't asked her brother earlier if they could borrow the van, he replied, "Maybe he was traveling and she didn't know where he was." That would certainly explain an inability to contact him, but there is no hint whatsoever in the text that this was the case. He was also asked what reason Juan would have

for being upset when his family talked about what they had seen. He responded with, “He was mad because his family didn’t care that he didn’t see what they saw.” Here is a perfect example of a logical explanation that has no connection to the text; it would be logical for Juan to be angry if he felt that his family didn’t care about him. However, it is clear from the text that this is not the case. The reader has been provided with many clues that the family does indeed care about Juan.

While this set of responses reflects a clear pattern or profile, it is also important to analyze this profile in light of the whole of QC’s overall performance. It is interesting to note that QC’s mother agreed to have him tested as a favor for a graduate student who needed practice in test administration. During the parent interview, his mother reported that her son was one of the best readers in the class. This same assessment was reported by QC’s classroom teacher. However, a review of the student’s performance on a measure that has 60% of its items tapping into higher-level thinking generates some significant results that call into question the perceptions of both adults.

Table 2. Summary of Recapitulation Record

CONTEXT LEVEL	ORAL FLASH	ORAL UNTIMED	ORAL		ORAL COMP%	SILENT TEXT	SILENT INFERENCE	SILENT CRITICAL	SILENT COMP%	AVERAGE				
			RAI	MMI						TEXT	INFERENCE	CRITICAL	COMP%	
Second	100	100												
Third	100	100	100	100	50	4/4	1/3	0/3	50	4/4	1/3	0/3	50	
Fourth	100	100	100	100	40	4/4	0/3	0/3	40	4/4	0/3	0/3	40	
Fifth	100	100	100		50	4/4	1/3	0/3	–	–	–	–	–	
Total						12/12	2/9	0/9		8/8	1/6	0/6		

Summary of Results

QC is currently enrolled in the third grade and was tested on two different passages at both the third and fourth grade levels along with one passage at the fifth grade level. There were four text-based questions at each level and QC successfully responded to all 20 of these. However, given his tendency to draw conclusion based on experience rather than use text information, it is not surprising that he was successful with only 3 of the 15 High-level Inferences. In addition, he was asked 15 Critical Response questions and was not able to successfully respond to a single one. Table 2 provides data from the *Critical Reading Inventory* Recapitulation Record for QC. It is interesting to note that QC is currently in a third-grade classroom where heavy emphasis has been placed on text-based instruction. If he were to be tested on an inventory that contained primarily text-based items, QC would almost certainly be deemed independent following his oral reading at the fifth grade level. In fact, on the *Critical Reading Inventory*, he has not even reached the criteria for instructional level at any of the grade levels on which he has been tested.

Interestingly enough, QC has not performed well on state reading assessments and, with considerable dismay, his surprised teachers have concluded that he is simply a poor test-taker. It appears to be far more likely that there is a considerable mismatch between the nature of QC's daily instruction and the nature of the state assessment that incorporates higher-level thinking.

QC has outstanding word recognition skills as reflected in his performance on two measures of the *Critical Reading Inventory*: the word lists and the oral reading. He received scores of 100% on each of these measures when reading at third, fourth and fifth grade. In addition, he received a score of 100% on text-based items and high marks for his retellings. He was clearly able to recall virtually everything of what he read. What QC was not able to do was to think about, react or respond to what he read. The specific areas of concern include both High-level Inferences and Critical Response items. We believe that an instructional plan based on these results will enable his teacher to provide differentiated instruction by forming a small group of students with similar reading habits. The emphasis for instruction would, of course, be placed on higher level thinking.

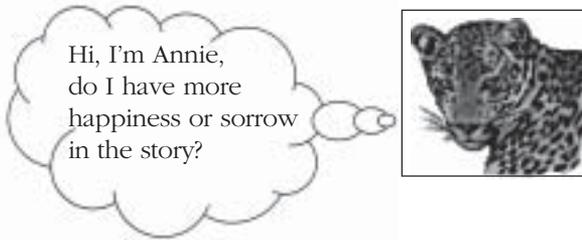
Sample Instructional Plan

I will use the *Critical Reading Inventory* story entitled *The Race* as a basis for a sample program of instruction. The goal of the instruction for QC would be to emphasize higher-level thinking in the form of inferencing and problem solving.

Critical Response Activities

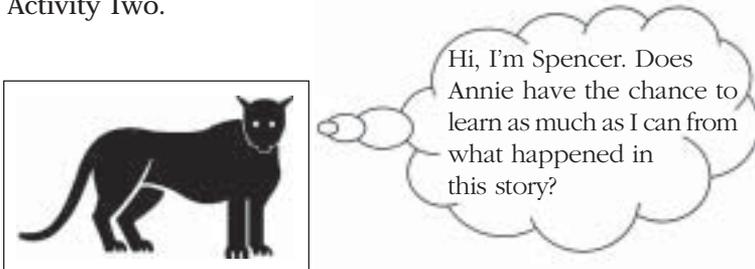
The first type of activity is one that corresponds to the structure of the Critical Response items on the *Critical Reading Inventory*. The strategy requires an identification of contrasting concepts that fit in the story. The teacher would pose them as a question asked by one of the main characters. The following is a modification of the concept behind the Discussion Web (Alvermann, 1991). Two columns will follow, the first headed by *happiness* and the second headed by *sorrow* and children are required to select and then interpret material from the story. Students such as QC are seldom able to complete such activities independently. Group dialogue as suggested by Almasi (1995) forces the students to go back to the story to interpret actions and dialogue. This emphasis upon peer dialogue is a type of instructional conversation proposed by Goldenberg (1992). This type of activity is ideally suited to address the needs of students such as QC.

Activity One.



The following activity fits more with Alverman's Discussion Web format; this includes a question that requires the reader to use the story and find support for a Yes answer as well as a No answer:

Activity Two.



Once again, this activity would be followed by two columns; one provides space for rationales that support a *YES* answer and the other for rationales that support a *NO* response. Again, students who fit the profile of QC can not do this type of activity independently. We suggest that teachers demonstrate and model it first as a whole class activity so that all students become familiar with the format. Then they should group students so that two or three who have demonstrated success with this type of thinking are grouped with two or three who need continued peer modeling.

Higher-Level Inferences

We will suggest two types of activities to use for students who demonstrate the same difficulties with High-level Inferences as QC. The first activity involves the creation of higher-level thinking prompts. For example, one might begin with a situation in the story; in this case, it may be Annie's disappointment that she and Spencer do not become friends. Then identify elements of the story that reflect relational ideas. One specific idea here is that the father recommends that Spencer race with Annie. Another interesting factor is the fact that there is a smile on Annie's face as she hears her father's suggestion. The task now is to create a question that will provide an alternative suggestion that could have resulted in a different action.

Activity Three. Here is a possible *prompt*:

Annie listened to her father and raced with Spencer, hoping that they would become friends. Tell how Annie's father could have helped Annie reach this goal.

Once again, it is important to emphasize the need for supplemental guidance for students like QC who are not accustomed to the demands of the prompt. We suggest that key questions be included with the prompt that when answered, provide students with the relevant information needed to make the inference. Questions such as the following could follow the prompt:

- a) What do you think Annie's father was thinking when Spencer ran up to him to ask for a race?
- b) Why do you think her father suggested that Annie race with Spencer?
- c) Do you think that father knew that Spencer bragged all the time?
- d) What could father say before the race that could help the racers see their competition as playing together?

In creating the worksheet, the teacher highlights the prompt at the top of the page. The questions are then listed in a row with space provided for each to be answered. Then all of the answers to the specific questions are studied as the basis for responding to the prompt. Here again we see powerful scaffolding provided in the form of a collaborative activity. Peer discussions are often successful in providing re-inforcement for students who have developed some capabilities with higher-level thinking, as well as modeling for students who tend view reading as a literal recall of story details.

Activity Four. We have found that one of the most effective activities for developing higher-level inferences is a modification of the Semantic-Feature Grid (Johnson & Pearson, 1984). In this activity, traits of characters or themes reflected by character's actions are listed in a middle column. Then the names of the two characters to be compared and contrasted are listed in a column before and after. In these two columns will appear numbers from 5 to 1 that will be used to rank the character in light of the trait. We have found that this activity is best introduced to the whole class. Then as teachers begin forming groups for differentiated instruction, the groups will include students who grasp the structure of the activity and for whom re-inforcement will provide mastery. This insures that the initial modeling done by the teacher leads gradual release of responsibility (Pearson, 1985) to the students and ultimately, to a level of independence. Here is an example of this activity:

Spencer		Annie
5 4 3 2 1 DK	Thinks about having friends	5 4 3 2 1 DK
5 4 3 2 1 DK	Has great confidence	5 4 3 2 1 DK
5 4 3 2 1 DK	Is interested in self	5 4 3 2 1 DK
5 4 3 2 1 DK	Is outgoing	5 4 3 2 1 DK
5 4 3 2 1 DK	Is concerned about others	5 4 3 2 1 DK
5 4 3 2 1 DK	Is hardworking	5 4 3 2 1 DK
5 4 3 2 1 DK	Sets goals	5 4 3 2 1 DK

Activity Six. Another activity that we have seen to be very effective in fostering higher-level inferencing is the Response Heuristic. In this strategy, the teacher would visualize the different “scenes” in a passage to identify one that is emotionally charged. For example, in this story, it would be easy to see how difficult it would be for Spencer to watch as all the animals cheered because Annie had just won the race. Once you have found that scene or event, use it to design a question that can lend itself to other related questions that force the reader to walk the shoes of the character.

This activity is one that can be used independently after students have demonstrated some success with several of the previous higher-level tasks. Before reading the story, students would need to be guided to consider whether the story reminded them of something in their life. Then the following statements would be presented in a journal response format:

Think about how Spencer felt when all of the animals cheered for Annie. Then think about what Spencer did after they cheered for her. Would you have done what Spencer did? Why or why not? If you felt like Spencer, would there be any one who could help you? Why or Why not?

We have found that one of the best ways to help children succeed with Response Heuristic is to incorporate this type of discussion as a post-reading activity. In fact, during this time, as well as during reading, teachers can demonstrate the Think Aloud (Davey, 1983) strategy so that it occurs as part of authentic discussion. This is especially important for students who do not connect to characters or ideas as they read. It is important that both the teacher and other students model this type of response to students. It provides validation for the fact that not all readers respond in the same way and that as long as your response is connected to something in the story, it is a good one to share.

Students like QC can benefit greatly from QAR (Raphael, 1982), in which they begin to understand the differences between information in the text and that in the mind of the reader. Anticipation Guides as described by Readence, Bean, and Baldwin (1998) with the use of content materials would help legitimize the importance of the use of prior knowledge. In addition, a wide range of classification tasks would foster the development of higher-level thinking.

Conclusions:

I believe that one of the major factors that can impact effective differentiated instruction is the use of an instrument that provides the classroom teacher with diagnostic information that distinguishes between different types of comprehension. Along with my colleagues, I have been disappointed to discover that many of the widely used reading inventories rely heavily upon text-based items (Applegate, Quinn & Applegate, 2004). If teachers use text-based assessments, they will have little data to indicate how the student will perform on a state or national assessment that makes use of higher-level thinking.

There is every reason to believe that QC will respond very well to instruction in higher level thinking. After all, he has mastered every dimension of reading that seems to have been asked of him. If, however, our conceptualization of reading includes only rote recall as the evidence of comprehension, there will be many undiscovered QC's in our classrooms who may never receive the instruction they need to help them see reading as a challenging and thought-provoking activity.

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LITERACY AND THE
TEACHING PROFESSIONS

STEPPING FORWARD TOGETHER: VOICING THE CONCERNS OF TEACHER EDUCATORS THROUGH PRACTICAL APPLICATIONS AND COLLABORATIVE ACTIONS

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Abstract

During the last CRA annual conference in Savannah, leaders of the Teacher-Education Division meeting continued their emphasis on making a difference in the public and policy making arena through collaboration within focus groups. The meeting began with a legislative update, followed by three focus group meetings. This was the third year of exploration of ways to proactively impact public opinion, policy, and legislation and culminated in participants discussing their applications of effective communication, partnerships, and research designs.

Policy, legislation, and public opinion impact professional educators at all levels and the students they teach. Decisions concerning critical areas such as teacher-preparation requirements, curriculum, teacher accountability, and high-stakes assessment are often influenced by public opinion and made by those outside of the education profession. Therefore, it is critical that professional educators find ways to be proactive in communication, research, and collaboration with the public and policy makers.

In November, 2005 in Savannah, Georgia, the Teacher-Education Division continued its emphasis on making a difference in the public and policy-making arena at the College Reading Association's annual meeting. The meeting began with a legislative update followed by three focus-group meetings which were organized toward addressing ways to form collaborative partnerships with the public and politicians, how to write pieces that communicate effectively with the public and policy makers, and how to organize research designs that would catch the attention of public and policy makers. The focus groups were initially formed during the 2004 Teacher-Education Division session in Delray Beach, Florida. Leaders and members agreed to remain in contact throughout the year with the intent of reconvening at the 2005 Teacher-Education Division session to share progress, things that had "worked" and those that had not, concerns, and plans with the entire group. The purpose of this article is to communicate the legislative information, varied content of each focus group's discoveries and applications, and the discussants' responses with a larger audience as possible models for teacher educators' important next moves in impacting public opinion and enacting policy changes for our profession.

Legislative Update

Leader: Barbara Fox

Will Rogers once said, "Even if you're on the right track, you'll get run over if you just sit there." Teacher education is on the right track, but unless we step forward together, we stand the chance of being run over by the standards-based reform movement. Large scale federal influence on reading education began some forty years ago when in 1965 Lyndon Johnson signed into law the Elementary and Secondary Education Act (ESEA) with the aim of eliminating poverty through education. The most recent ESEA reauthorization, the No Child Left Behind Act of 2001 (NCLB), raises the bar on standards-based reform even higher by requiring the States to document student progress and teacher quality. Add to this mix the Higher Education Act of 1965 (HEA), that is making its way through Congress at this writing. HEA projects a vision of the federal role in teacher education in which teacher-education curricula are reformed, teacher educators retrained, and teacher education programs held accountable for the achievement of elementary, middle school, and secondary school students.

The standards-based reform movement, as framed by NCLB and HEA, focuses public attention on the preparation and performance of highly qualified teachers. One way to consider teacher quality is to look at content knowledge. NCLB places a premium on teachers who know their subject matter. It is assumed that teachers who hold a license in the areas they teach bring strong content knowledge (knowledge of what to teach) to their classrooms. As of 2004, all states had some sort of quality standards for teachers, and 39 required a content-specific degree for at least one initial licensure area (U.S. Department of Education, 2005). When the quality of initially licensed teachers is documented by pass rates on licensure exams or content knowledge tests, then we do not have far to go to see a time when teacher ability is distilled into a numerical benchmark with no real public discussion of what makes a good teacher.

Another way to define a highly-qualified teacher is to measure student achievement. NCLB requires that students in selected grades be tested in reading with the results used to evaluate the performance of individual schools. Schools whose students have good scores are assumed to be making Adequate Yearly Progress (AYP), and delivering effective reading instruction. It is further reasoned that if schools making AYP have effective teachers, then by inference the teachers in schools that do not make AYP must be ineffective. Using a single indicator, in this case, a once-a-year score on a reading test, does not take into account a myriad of factors that affect student learning, such as demographics, parental involvement and education, school attendance, and English-language proficiency.

The quality of teacher-education programs is a third part. When we look at education through a narrow lens—a lens that disregards demographic and social influences on learning, distills teacher quality into easy-to-measure benchmarks like passing licensure exams, and assesses school quality by once a year test scores—it is not too much of a stretch to extend accountability for student achievement beyond elementary, middle and secondary school campuses. For example, a study of the achievement of kindergartners (U.S. Department of Education, 2006), found positive relationships between (a) teaching practices and achievement in kindergarten, and (b) coursework in reading and kindergarten teaching practices. Among the teacher practices related to better student achievement were time spent on reading instruction, phonics, didactic instruction, reading and writing skills and activities, and comprehension.

The rationale for holding teacher-education programs accountable for the achievement of school-age students is based on several interlocking assumptions: (a) teacher practice affects achievement, (b) teacher preparation affects practice, (c) therefore the quality of teacher preparation programs should have an affect on reading achievement nationwide, and (d) reading coursework affects the type of teacher practice that is related to increases in reading ability.

The kindergarten achievement study (U.S. Department of Education, 2006) illustrates data that support the first two; the third and fourth follow from the first two assumptions. The rationale is further established for scrutinizing the content of preservice reading education courses. However, any scrutiny of reading teacher education programs and reading coursework runs the risk of producing misguided conclusions if the evaluation excludes firsthand knowledge of course content, delivery, and organization. The situation is further complicated when the reading methods courses evaluated do not focus on the same content and teaching goals (Walsh, Glaser, & Wilcox, 2006). The challenge for reading teacher educators is to embrace change and offer constructive input into the reform movement while at the same time retaining our own values and acting on our own beliefs about what makes a good teacher of reading. The sections that follow describe how teacher educators might do this.

Focus Group: Written Communication

Leader: Allen Berger

For the meeting in Savannah, I shared about 25 pieces of writing with participants that dealt with communicating with the public. Some were written by university students individually and in groups. I was the author of others. Articles that explained how to communicate ideas through newspapers were also included. The packet concluded with an email written to Congressman John Boehner, Chair, Education and Workforce Committee, U. S. House of Representatives.

The pieces written by students require further explanation. The process began one day a few years ago with the following statement which was directed at a class of university students: "Let's see if we can do something that we have never done before. Let's see if we can write an article in one day." It was a summer class and we had one hour and fifty-five minutes. During that time, the class lived the writing process. They chose a topic on assessment and some looked in books for references, some went to the chalkboard, one went to the computer, and they had sketched out a draft by the end of the class. After tidying it up, copies were run off for everyone (about ten people) and they read the revised draft the following day. We sent it out and it was published in a state journal. I tried it in subsequent years and every year, except one, the students' writing appeared in Ohio newspapers. These students were all master's students and some have had their individual efforts published.

As an example, if a student does an I-search paper in class that may be suitable for publication, I encourage the student to make changes suitable for publication. One appeared in a local newspaper under the heading "Reading for Pleasure Gives Kids an Advantage." Another on Senate Bill 55 in the State of Ohio appeared as the lead article in *The Ohio Reading Teacher*

(Massarelli, November 2, 1999). Another recent example involved a student who was very upset about bullying in schools. She asked if I would help her with an article that she wanted to send to the Cincinnati newspaper. I suggested that we involve the whole class. As she wrote a draft, it went through a number of revisions, and her article appeared in the *Cincinnati Enquirer* (Rein, October 17, 2005).

The purpose of this set of anecdotes is to underscore that it is not too difficult to involve our students who may want to be teachers or on their way to write successfully for publication. The importance of written communication on literacy education needs to be modeled for students. For example, through the years I have written letters-to-the-editor or opinion/editorials when the need arose. When the *Cincinnati Enquirer* in an editorial wrote that “half the students in Cincinnati Public Schools cannot read,” I wrote a letter asking for clarification (Berger, 2004). When the then State of Ohio Senate President made what he thought was a joke about school roofs that leak, I wrote a letter that appeared under the heading “It’s Too Bad That Children Can’t Vote” (Berger, March 13, 1999). Another example is an opinion/editorial I wrote that appeared with the headline “Ivory Towers Are Often Tempting Target.” This won an educational achievement award from the Educational Press Association of America. When my congressman said a few moments before President Bush signed the No Child Left Behind Act in nearby Hamilton, Ohio, that “seventy percent of inner-city youth in the fourth grade can’t read at a basic level,” I wrote an opinion/editorial titled “Misleading the Public About Education” (Berger, February 3, 2002).

Let me conclude, as I did with the above examples, with reference to how-to-do-it articles that we’ve written for *Reading Today* (Berger, 1997a) and in *The Reading Teacher* (Berger, 1997b). When asked if what we have said about all of this has had any effect or if it can, it is hard to gauge. My short answer is “no” and “yes.” An answer of “no” explains that many politicians are going to act on the best evidence that comes their way and we are not the ones who are reaching them. An answer of “yes” explains that some of our ideas and evidence does reach them. Additionally, because politicians get their strength from the public, we need to continue, as individuals and as an organization, to strive to reach out to politicians and the public.

A more personal note may serve as a moving conclusion. I retired from Miami University in January 2006. While cleaning out my office, the janitors and custodians were a big help. One evening while I was putting my books from bookshelves into piles to donate to the university library, one of the janitors said, “We’re going to miss you. I’m going to miss reading the articles you write in the university and local newspapers.”

Those are the kinds of comments one treasures, which gives one optimism for a better future for literacy educators.

Focus Group: Partnerships

Leaders: Jill Lewis and Jack Cassidy

Teacher educators with an interest in issues related to literacy have always had concerns about the programs and policies mandated for the nation's schools. These concerns have intensified with the monies being funneled through the *No Child Left Behind* legislation of 2002. While many teacher educators of reading have passionate beliefs about these monies and this legislation, they represent a very small group in the overall population. Also, the outside world might believe that some of their interests are self-serving; therefore, it is imperative that reading educators form partnerships with other groups and individuals concerned with literacy.

A first consideration before forming any partnership, is to pose and then tentatively answer a series of important questions suggested by Lewis, Jongsmas and Berger (2005). These include:

1. What other groups/individuals might be interested in this issue?
2. Which of these groups/individuals would have a point of view similar to yours?
3. Even if their point of view is similar, where might you have specific/minor disagreements on this issue?
4. What points on your issue might you have to sacrifice to be successful in this collaboration?
5. What else might you have to give up in order to be successful?
6. What could each group/individual mentioned in question two, contribute to the collaboration (e.g. developing the plan, implementing the plan, writing/editing skills, meeting place, refreshments, funding)?
7. If the collaboration seems worthwhile, what is your action plan for initiating it?

Second, when looking for groups with whom to collaborate, one often thinks of other organizations of educators. Certainly, the International Reading Association and the National Council of Teachers of English have collaborated on a number of publications and positions. A recent example is the *Standards for Middle and High School Literacy Coaches* (2006) which was actually completed in collaboration with a number of subject matter organizations including NCTE. While IRA might have wanted to just follow their own standards for literacy coaches (International Reading Association, 2004), there had to be some compromise to gain the assistance of the other professional educators. However, the resulting document is more likely to have greater support and therefore greater impact on the quality of services offered to teachers and children in the nation's secondary schools.

Larger and more generic organizations of educators such as National

Education Association (NEA) and the American Federation of Teachers (AFT) are also prime sources when seeking support for various literacy legislation. Certainly, numbers do count with politicians. Sometimes, however, these larger organizations have taken stands against prominent legislators or specific political parties. Such stands could negate the effectiveness of their size with some legislators and politicians.

Although other educator associations are often prime candidates for collaborative efforts, non-educator groups can carry more weight with politicians and legislators because they may not be perceived to be self-serving. A good example of this is the Alliance for Excellent Education, a non-profit foundation established to improve high schools in the United States ([HtmlResAnchor www.all4ed.org](http://www.all4ed.org)). Many believe that the work of this group (Biancarosa, & Snow 2004; Biancarosa, 2005) is largely responsible for the attention currently being paid to adolescent literacy (Cassidy & Cassidy, 2005/2006). The Alliance for Excellent Education, however, sought support not only from education associations such as IRA, NEA, and AFT, but also from many non-educator groups such as the National League of Cities, the National Parent Teacher Association, the U.S. Conference of Mayors, the National Association of Social Workers, and the American Association of University Women. Armed with this support, the Alliance organized a series of breakfasts for legislators and their staffs in Washington during which they highlighted issues related to adolescent literacy. Perhaps, as a result of their efforts, critical monies were directed toward programs for striving readers (i.e. older students and students in secondary schools). Legislators listened and took the action that teacher educators have long advocated because they saw that it was not only important to teacher educators but also to parents, businessmen and local politicians.

Teacher educators must collaborate with other individuals and organizations to make their voices heard. However, before such collaborations can take place, educators must consider certain questions and make appropriate compromises.

Focus Group: Research Design

Leaders: Wayne M. Linek and D. Ray Reutzel

The focus of our group was designing research that will validate quality teacher-education programs. Designing research that connects teacher education to student outcomes is necessary because politicizing teacher certification and manipulating the definition of “highly-qualified teacher” has created a national attitude that places little to no value on teacher education. Thus, as teacher educators, we have to prove our worth to politicians and the general public. We may circulate email messages like the following:

What Teachers Make

The dinner guests were sitting around the table discussing life. One man, a CEO, decided to explain the problem with education. He argued, "What's a kid going to learn from someone who decided his best option in life was to become a teacher?" He reminded the other dinner guests what they say about teachers: "Those who can, do. Those who can't, teach." To stress his point he said to another guest; "You're a teacher, Susan. Be honest. What do you make?"

Susan, who had a reputation for honesty and frankness replied, "You want to know what I make? I make kids work harder than they ever thought they could. I make a low ability student who gets a C+ feel like the winner of the Congressional Medal of Honor. I make kids sit through 40 minutes of study hall in absolute silence. You want to know what I make. I make kids wonder. I make them question. I make them criticize. I make them apologize and mean it. I make them write. I make them read, read, read. I make them show all their work in math and perfect their final drafts in English. I make them understand that if you have the brains, and follow your heart, and if someone ever tries to judge you by what you make, you must pay no attention because they just didn't learn." Susan paused and then continued. "You want to know what I make, 'I MAKE A DIFFERENCE.' What do you make?" (author unknown)

As a community of teacher educators, we know the points Susan makes are critical when it comes to student achievement and personal development. Although these inspiring quips may help us feel good, they do nothing to persuade people that teacher-education programs make a difference. What is published for consumption by the general public is more like a recent article in *Newsweek*:

The surest, quickest way to add quality to primary and secondary education would be addition by subtraction: Close all the schools of education . . . Many education schools discourage, even disqualify, prospective teachers who lack the correct "disposition," meaning those who do not embrace today's "progressive" political catechism. . . . The permeation of ed schools by politics is a consequence of the vacuity of their curricula . . . Today's teacher-education focus on "professional disposition" is just the latest permutation of. . . "immutable dogma," which...is "Anything But Knowledge." The dogma. . . is about "self-actualization" or "finding one's joy" or "social adjustment" or "multicultural sensitivity" or "minority empowerment," but is **never** about anything as banal as mere knowledge. It is about "constructing one's own knowledge" and "contextualizing knowledge," but never about knowledge of things like biology or history. (Will, 2006, p. 98)

These unfounded assertions and twisted meanings taken out of context are viewed by politicians, policy makers, and the general public as fact. These assertions damage the credibility of teaching as a profession, belittle the education of certified teachers who went through intensive pedagogical programs, and are aimed at destroying schools of education. Thus, in our high-stakes testing environment, it becomes incumbent upon teacher educators to prove the value of their programs.

The error we make as teacher educators is taking for granted the points Susan makes. Our knowledge of educational psychology, learning, child development, pedagogy, and the extensive research base in education coupled with our teaching experience has created a broad and deep body of knowledge. However, our knowledge, experience, and the fact that most everyone has been to school leads us to think that everyone should know what we know. Unfortunately, the general public is not aware of a truly highly-qualified teacher's knowledge base and looks at teaching through the eyes of a child. People who experienced schooling tend to think they know about teaching and their strongest memories are those that are related to strong emotional reactions they had as children. So, one or two strong negative memories often outweigh the content and skills that they learned when they remember their classroom experiences. Most will also say that there was a teacher who really made a positive difference in their lives. Unfortunately, these truly knowledgeable and highly-skilled teachers who made a difference also made teaching look simple and easy. Making teaching look easy compounds the problem of negative perception of our knowledge base as minimal and our curriculum as vacuous. We know the opposite is true.

The problem with our research in teacher education has been that we stop short of showing the relationships among curriculum, teacher effectiveness, and student achievement. In the last 20 years we have shifted our focus to more descriptive research employing qualitative methods because simplistic research related to reading wars, pedagogical approaches, and teacher effectiveness consistently showed that "the teacher makes the difference." Thus, our evolving knowledge of psychological principles brought us to a point where it was time to shift our research paradigm so that we could describe the characteristics of effective teachers. Our recent research agendas, therefore, have focused on understanding beliefs, dispositions, and characteristics of effective teachers and how all of this leads to student engagement. This research has lead schools of education to focus on developing teachers who are prepared to teach all learners through reflective practice and action research.

In the 1990s, professional development schools were identified as the model for the redesign of teacher education (Button, Ponticell, & Johnson, 1996; Darling-Hammond, 1997 Goodlad, 1994; Holmes Group, 1995). So,

teacher educators have also focused their efforts on creating field-based teacher education programs to develop teachers who are effective during their first year in the classroom rather than proving the worth of their curriculum or the value of their programs. We have railed against high-stakes tests that create roadblocks to student learning and alternative-certification programs that minimize professional knowledge and skills. However, we have not taken the time and effort to transform our wealth of knowledge about beliefs, dispositions, characteristics, and the development of skills to create instruments needed to conduct research that is considered “scientific.”

It hurts our credibility as a profession when politicians and policy makers, seeking quick and simple answers so that they can demonstrate that they are doing something about improving education, ask us what to do and we give them the answer, “It depends.” Yes, we know it depends on multiple factors such as: teacher disposition, knowledge of psychology, knowledge of child development, knowledge of pedagogy, skill to effectively apply teaching/learning strategies, ability to monitor and adjust based on the context, as well as knowledge of content. Explaining all of this, which is our knowledge base and curriculum in teacher education, takes more time to understand than politicians and policy makers are willing to take. We have to be able to distill this knowledge and skill base into easily understandable numbers so that we can conduct scientific research to simplistically “prove” to the general public what we already know—*We make a difference*. Admittedly, research in teaching and teacher education that pays no attention to student achievement is still valid. For example, *Researching Teaching: Exploring Teacher Development Through Reflexive Inquiry* (Cole & Knowles, 2000) is an excellent text to help with professional development. However, the lack of direct connections to a pedagogical knowledge base which can be measured as well as the lack of connections to student achievement leave the suggestions made by these authors open to pot shots by people who don’t understand the purpose and value of pedagogical curriculum and reflexive inquiry.

Overall, educational research over the last 30 years has found that teachers who have completed teacher-education programs and enter the classroom fully certified tend to be more successful, receive higher evaluations from supervisors, and have students who achieve at a higher level (Ashton & Crocker, 1986; Evertson, Hawley, & Zlotnik, 1985; Greenberg, 1983; Haberman, 1984; Olsen, 1985). The design of these research studies, however, has not been valued. Recently, research indicating that field-based teacher education is linked to improved public-school student achievement in low SES schools has been conducted (Linek, Fleener, Fazio, Raine, & Klakamp, 2003). Once again, the research design has not been held in high esteem by politicians and policy makers, even though mixed methods using compari-

son groups and extensive sources of supporting qualitative data documented student improvement over a five-year period. Since this study did not employ experimental and control groups or an instrument designed to measure teacher knowledge and skills, this research is not considered scientific under current standards.

Thus, we need to create valid and reliable instruments that measure teacher pedagogical knowledge and skills quantitatively, so that we can conduct “scientific” experimental and quasi-experimental studies that use “teacher knowledge and skills” as the independent variable and “student achievement” as the dependent variable. To do this, we must move beyond just identifying specific factors in effective teachers’ knowledge and skills. We must create the instruments that provide evidence that this knowledge and these skills are directly and highly related to elevated levels of student achievement. We must also show that this knowledge and developing these skills are the curriculum of schools of education. Then we must conduct experimental and quasi-experimental research using teacher-education programs as the independent variable to “prove” we make a difference.

Luckily, D. Ray Reutzel and his team in Utah have been working on the development of just such an instrument. So, let’s say “Bring it on” to those who have been using high-stakes testing programs to discredit the teaching profession and schools of education. Let’s use the new instrument to make these high-stakes tests “prove through scientific research” that teacher education makes a difference in teacher knowledge and skills, which ultimately result in higher student achievement.

Commitment, Communication and Collaboration

Discussant: Donna Alvermann

In an article entitled “A Time of New Literacies: Who’s Educating the Teacher Educators?” Boling (2005), wonders who are the people who serve as mentors and supporters of teacher educators. The papers presented at the Stepping Forward Together session in Savannah in the Fall of 2005, seem to provide a step forward in addressing Boling’s question: It’s quite possible that the Teacher Education Division (TED) of the College Reading Association is at least partially filling the mentoring role in the following ways.

First, as evidenced by the information shared during the 2005 Stepping Forward Together session, presenters in the focus groups represented a variety of constituencies throughout the United States. In that capacity, they were able to update other TED members assembled who wanted to learn about current or proposed legislation that will have an impact on teacher education in the very near future, about ways to communicate in writing with local newspapers and policy makers, about the influential role univer-

sity-school partnerships can play in state and local matters pertaining to education, and about the research designs necessary to be competitive in the current era of “scientifically based reading research.”

Second, the Teacher Education Division has assumed responsibility for informing the CRA membership at large about issues related to teacher preparation and professional development for practicing teachers by annually proposing and hosting a session such as *Stepping Forward Together*. The group also submits summary manuscripts to the CRA Yearbook on an annual basis. Thus, through its proactive stance, the Teacher Education Division serves as an excellent model of how an insider group is sometimes the best informed group for mentoring others of its kind.

But organizational infrastructure aside, what else contributes to the group’s effectiveness in mentoring and supporting its own? As demonstrated at the 2005 annual conference, members of the Teacher Education Division exhibit a “cohesiveness” in their belief that to move beyond a simple “what works” mindset will take more than a small group of advocates working on behalf of other teacher educators. Just who this larger group should be is not clear. Possibly it could be a liaison appointed from the CRA Board of Directors, who could initiate contact with one or more of the other professional-literacy organizations to see if there are groups similar to CRA’s Teacher Education Division who would be interested in sharing their groups’ information on issues related to policy and research. If a network of concerned teacher educators could be formed across organizations, the chances of moving beyond a simple “what works” mindset might be feasible.

A second contributing factor to the Teacher Education Division’s effectiveness in mentoring and supporting teacher educators in the current political climate would seem to be its ability to create a genuine “we” among its members. For while it is unlikely that all members agree on each of the issues addressed in the *Stepping Forward Together* session, it seems that they are willing to enter into a sustained dialogue focused on how understanding their differences will lead to a better understanding of themselves in the process. This long-term commitment to understanding “the other” in order to grow in self-understanding is vital to any advocacy group’s future, and it is especially the case for literacy teacher educators. For as Ron Ferguson (2004) of the John F. Kennedy School of Government at Harvard University has observed from a distance, yet with a trained eye, in the field of literacy education, genuine change is no simple task. There are political and ideological hurdles both within and outside the field that need to be jumped—over and over again.

The Teacher Education Division is to be commended on its long-time interest in keeping CRA membership abreast of the issues in research. Whether it is in sessions such as *Stepping Forward Together* or in support of individual members’ efforts on behalf of literacy education, the Teacher Educa-

tion Division annually offers a platform from which to both view and participate in discussions around issues that affect not only literacy researchers themselves but also the consumers of their research. With its continued emphasis on making a difference in the policy arena, the Teacher Education Division is in a good position to provide historical documentation of what can be accomplished through the sustained efforts of teacher educators mentoring “their own.”

The Role of the Professional Educator in Impacting Policy and Practice: Suggestions for Taking Action

Discussant: Deborah Dillon

The College Reading Association’s (CRA) Teacher Education Division has provided vision and leadership in outlining the roles educators might assume in understanding current legislation that impacts literacy education, writing to influence policy makers and the public, communicating with the public about literacy research and practice, and collaborating with others to foster literacy initiatives. Focus-group work fostered by CRA members has led to important local, state, and national initiatives that have, and will continue to make a difference.

In the state of Minnesota, literacy educators have worked to stay in close communication with state department of education personnel and state legislators on issues that impact literacy in communities and the K-12 schools. In early 2003, educators across the state received a “wake up call” when a new commissioner of education sought to develop new reading and language arts standards for K-12 students without input from teachers or researchers. The lessons we learned in Minnesota and the work we’ve done since our wake up call, form the basis for the following arguments:

Impacting State and Federal Legislation Issues

Teacher educators who seek to work with legislators at the federal and state level need to identify and understand federal and state legislation and the policy makers who support these ideas. We need to determine the impact specific legislation will have on children and youth, educators, researchers, families, and institutions. It is helpful to read and discuss current reports issued about literacy with colleagues (e.g., NRP, RAND, Reading Next, Reading to Achieve), summarize and articulate the ideas from these reports, and point out how they compare and contrast with current teaching and learning practices. Legislators and policy makers rely on university faculty to understand this information and communicate the ideas clearly. In addition, teacher educators are urged to seek out opportunities to meet and work with influential legislators before and as legislation is designed. Our goal is to work

with legislators and their staff to craft educational agendas and meaningful, responsible policies. This often requires that educators are ready and willing to testify at legislative hearings and town meetings.

As teacher educators, we need to reposition ourselves with legislators, policy makers and the general public. For example, teacher educators at universities are often viewed as “inveterate defenders of the status quo in public education.” [We view ourselves as] “reformers...but we come across as the diehards of the education establishment, zealously fending off the efforts by real reformers to transform...” (Labaree, 2005, p. 189). Instead, we want to be viewed as well-informed, reasonable, and collaborative citizens. We also need to avoid being positioned as ideologues. Former President Clinton commented that ideologues “don’t want any shades of gray;” [they] “name the enemy” and go after them (Clinton, 2003). Clinton suggested that we strive to be “practical people.” We have to be willing to try out new ideas—*experiment*. We have to believe that we might be wrong (vs that we are always right), and that being wrong is ok—we can adjust and change our course of action. As we experiment and try out new ideas to develop better ways to support the literacy development of children and youth, we need to document the *evidence for our ideas*, and develop persuasive *arguments* for our perspectives, grounded on this evidence (Dillon, 2003a; Dillon, 2003b).

Impacting Research on Critical Issues in Education

As teacher educators, we need to state what we still need to research and understand about literacy teaching and learning. We would benefit from moving beyond the “predictable responses” (Labaree, 2005) often associated with educators (e.g., teaching needs to be child centered and inquiry based; learning should be authentic, engaging, and focused on cognitive and social processes). Instead, we need to take a pragmatic stance, stating that we want classrooms that characterize all of the items previously noted, but recognizing that teachers and students are also operating in schools where they are held accountable for standards-based curriculum, high stakes testing, and a press for making the system work more efficiently and economically.

I urge teacher educators to work with school-based colleagues and other stakeholders to formulate pragmatic, important, and researchable questions and create appropriate research designs to collect data to address these questions—including mixed research designs (Dillon, 2005; Dillon, O’Brien, & Heilman, 2000). We will need federal, state, and foundation monies to invest in the time and human resources to lead and organize these efforts and report the findings. Partnerships between people with expertise from universities and schools, along with legislators and DOE personnel, are key to moving forward on important and often costly large-scale research plans needed to understand difficult issues in literacy education.

Impacting Partnerships/Collaborations

Teacher educators provide leadership needed in forming collaborations and coalitions focused on improving literacy education. For example, forming coalitions is critical to greater understanding, cooperation, and community. Coalitions allow us to stay informed and bring people together from various viewpoints to work on issues and tasks that can't be accomplished separately. The Literacy Coalition of Minnesota (LCM) is one example of a collaborative effort. The LCM is an outgrowth of the 2003 Minnesota K-12 reading/language arts standards debates (Dillon, Boehm, & DeLapp, 2005) and is comprised of literacy leaders from schools, community, and state agencies. These leaders and their organizations have banded together to stay informed, share information with each other, and serve as a resource for policy makers interested in literacy issues and policies. Relationships and ongoing communication are central to the coalition and shared responsibilities, values, and goals are key to forming strong partnerships.

Partnerships and coalitions also allow members to set important agendas and seek support from business or policy centers. For example, in the state of Minnesota the Bush Foundation recently provided a professional development grant to the University of Minnesota's literacy faculty and colleagues from three other institutions. With three years of funding we worked to strengthen K-12 literacy teacher preparation at our four institutions and studied the collaborative process that resulted in new curricula and syllabi, four "agreed-upon" assignments used at all four sites, common pre- and post-assessments, and clinical experiences deemed important for K-12 literacy preservice teachers. The results of this project have been shared with university colleagues across the state and nationwide (Vagle, Dillon, Davidson-Jenkins, LaDuca, & Olson, in press), K-12 teacher leaders in the Quality Teaching-Reading Network, state department personnel in Minnesota, and Bush Foundation officers. More dissemination is needed but partnerships such as this hold promise for making things happen at the local level with import for the national picture.

In summary, individuals from schools, universities, government agencies, and other educational settings often do not know of, or understand each others' work or perspectives. More opportunities need to be created that bring knowledgeable people together to talk about educational issues and problem-solve solutions. In addition, educators in K-16 settings are often reluctant to get involved with legislative or policy issues; they also shy away from interactions with members of the press. However, we need educators to take up different tasks on a number of issues—to be part of solving critical problems in literacy education. Some individuals are good at coalition building; some at town meetings with community leaders and parents; others share ideas one-on-one with legislators; others speak at legislative hearings. What counts is that educators are involved. This used to be an option—it isn't anymore.

Conclusion

As evidenced by the diverse expertise, experiences, and knowledge shared by the legislative liaison, focus groups and discussants, teacher educators are immersed in multiple issues surrounding government mandates and legislative actions accompanying laws such as No Child Left Behind. We have the opportunity to teach our students about the intersection of politics, policies, partnerships, and education and to educate students within that space. Our responses to the atmosphere of change are important. Collectively and individually we can make a difference as we communicate effectively with the public and policy decision-makers; design and conduct research that impacts public opinion and policy; and/or form collaborative partnerships with administrative and political associates. Proactively and collaboratively, we can positively impact the future of our profession and the students we teach. As professional educators, this is both our right and our responsibility.

Policy makers, parents, teacher educators, and teachers are working toward the same goals: a nation of good readers and good citizens. Teacher educators are on the right track in preparing highly qualified teachers to teach reading to the children in our nation's schools. The NCLB goal of putting a highly qualified teacher in every classroom is one we in higher education enthusiastically endorse. The issues for teacher educators are how to define a highly qualified teacher and how best to prepare these teachers. Changing times compel us to do something. We cannot sit comfortably on the right track of preparing good teachers as we wait for the inevitable train of standards-based reform to affect teacher preparation programs. It is important for us to step together into the future by voicing our concerns as teacher educators through collaborative actions that take a proactive, positive approach to shaping policy and, ultimately, the characteristics of teacher education in the future.

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WRITING THROUGH THE ARTS: PROMOTING TEACHER EFFICACY

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Abstract

Writing Through the Arts was developed to promote a systemic, sustainable professional development program that trained classroom teachers in strategies for using the arts to enhance student writing abilities. The major objective of the program was to implement a professional development program for teachers in high-need schools that would help students achieve mastery of state writing standards using the arts to guide the process. A comparison of pre and post workshop teacher feedback indicates that Writing Through the Arts positively affected teacher participants' perceptions about effective teaching of writing, efficacy, and their understanding of the writing process.

"I'm someone who always ran through the art gallery. Now I can really stop and look at a painting and think of writing prompts."

(Middle school language arts teacher,
Midwestern urban school district)

This article will present information on *Writing through the Arts* (WTTA), a program designed collaboratively by university teacher education and art faculty, along with school district language arts personnel, to facilitate professional development for classroom teachers which interconnects art criti-

cism with writing development. *Writing Through the Arts* uses pieces of art as the tools to help teachers develop writing skills of students as they progress through the process of meaning-making. The article first discusses research and theoretical foundations that support the need for linking the arts with other disciplines. Secondly, it describes how a group of classroom teachers progressed through the professional development program. Next, the article discusses feedback that *Writing Through the Arts* program participants provided during and after they completed the program, along with a brief summary of an analysis of this feedback. It concludes with a brief discussion about the implications the current experience in using this program have for the teaching of writing.

Research Foundations

With the advent of outcome-based education, growing concern has arisen from both the public and private sectors regarding the reduction of arts education and the abilities arts education develops, coupled with care about how to provide effective minimum competency skill instruction.

No Child Left Behind Act (2002)

Mandates contained in *No Child Left Behind* (NCLB) Legislation require that students meet or exceed specific basic language arts and mathematics competency skills, that educators attain and maintain specific measures of teaching expertise, and that schools and districts consistently achieve progress goals set each year. Regrettably, minimum proficiency in art education is not addressed in NCLB legislation even though a body of research exists showing that arts education actually increases basic competency skills in children (Annenberg Institute for School Reform, 2003; Uy & Frederick, 2004). As Figure 1 illustrates, there are two programs of effective instruction that have been shown to support arts education and skill competency. They are Artful Learning (2005) and Transforming Education through the Arts Challenge (Annenberg Institute for School Reform; Character Through the Arts, 2005; National Arts Education Consortium, 2001; Thompson & Lane, 2004). Each model offers valuable insight into effective instruction and was integral in the development of *Writing Through the Arts* as discussed in the description of the program.

Artful Learning

Artful Learning (2005) is a K-12 arts-based, comprehensive school reform model that prepares teachers to engage the arts and the artistic process to strengthen teaching and learning in core subjects. Artful Learning was envisioned by American composer Leonard Bernstein after he observed that the artistic process of creating and experiencing art is a fundamental way of

Figure 1. Synthesis of Research Findings and *Writing Through the Arts*

INDICE	TRANSFORMING EDUCATION		
	ARTFUL LEARNING (AL)	THROUGH THE ARTS CHALLENGE (TETAC)	WRITING THROUGH THE ARTS (WTTA)
Basic Premise	Comprehensive School Reform model	School Reform Initiative in the Arts	Professional Development
Goal	To strengthen education nationally and prepare teachers to use the arts and the artistic process to reinforce teaching and learning across all academic subjects	Primary focus is on the visual arts and exclusively on learning in and about the arts	To provide comprehensive professional development using the arts as the means for improvement in the content area of writing
Funding	Based on Leonard Bernstein's vision and self-funded by schools and districts	Co-funded by National Arts Education consortium and J. Paul Getty Trust	Funded by Indiana's Commission for Higher Education (Improving Teacher Quality Partnership Program)
Role of State Standards	AL curriculum aligned to all curricular standards	TETAC curriculum aligned to all curricular standards	WTTA focuses on Indiana writing standards
Level of School Involvement	Entire school focuses on one Masterwork	Classroom teachers develop individual units of instruction	Multidisciplinary cohorts are developed to study each piece of art from a variety of viewpoints
Professional Development	Individual site design includes professional development opportunities specific to the needs of that population	35 mentors worked directly with schools—delivering professional development and technical assistance services	Ongoing- this is the primary focus of the train-the-trainer model
Evaluation Measures examined:	1) Improved school achievement test scores and 2) improved API scores	1) Visual arts learning and 2) teachers' design of effective units of study that integrate the arts	1) Improved student writing skills 2) improved writing instruction and 3) teacher efficacy
The Role of Art in Instruction	Vehicles for learning across the curriculum	Designed to enhance the quality and status of arts education	Emphasis on learner-centered strategies

learning, and one transferable to any discipline. Through the primary components of Artful Learning (Experience, Inquiry, Creation, and Reflection) students and teachers explore learning itself through the lens of the artist, the mentorship of a teacher, and the discipline of a scholar. The Artful Learning model is shared with teachers through a series of ongoing professional workshops and mentoring relationships. This model is concept-based, brain-based, and interdisciplinary (Artful Learning: A school reform model, 2005; Character Through the Arts, 2005; Thompson & Lane, 2004).

Transforming Education Through the Arts Challenge (TETAC)

The Transforming Education Through the Arts Challenge (2005) has one goal: to make meaningful study of the arts integral to a child's education. The vision underlying this project is that the arts can hold a key spot in the core curriculum and help change teaching from an isolated, individual endeavor to a collaborative effort that includes students.

In order to achieve this vision, TETAC developed an approach to instruction that blends the strength of three teaching practices by expecting instruction in the arts to be:

1. Comprehensive, including the study of aesthetics, criticism, history and culture and the knowledge and skills needed to create or perform.
2. Integrated with other core subjects around important themes or enduring ideas.
3. Constructivist or inquiry-based by using instructional practices that adjust to the diverse learning styles of students, especially those at risk of failure (Annenberg Institute for School Reform, 2003; National Arts Consortium, 2001).

Using Art Criticism: A Theoretical Framework

Many teachers embed art-making activities to augment writing skill development with their students (Ernst da Silva, 1997, 1999, 2000; Manning & Manning, 1996; Olshansky, 1994, 1995). Often, drawing and illustration have been used as methods to develop better understanding and increase interest. Non-art making activities such as art criticism may be less utilized. The theoretical and research underpinnings of this approach suggest, however, that it provides a rich source for developing the kind of thinking that will enhance among other things, student writing. For example, Stout's (1995) research specifically describes how art critical practices generate higher-order thinking as witnessed in student journal writing. Other studies completed at the National Arts Education Research Center at New York point to growth in higher-order thinking and in vocabulary and writing skills (Corwin, 1991; Parker & Newman, 1991). Of particular note is the ongoing work of Harvard's Project Zero (2006)

whose goal is to improve education through the arts. Founded by philosopher Nelson Goodman and under the co-direction of David Perkins and Howard Gardner, several research projects demonstrate how art enhances writing development through critical thinking strategies. For example, The Figurative Writing Research Project (2006) focuses on children's understanding of metaphor and irony.

Synthesis of Research Foundations

The goals, program implementation mechanisms, and measures of effectiveness of Artful Learning (2005) and Transforming Education Through the Arts (2005) are complimentary yet diverse. Thus, after investigating the research, comparing and contrasting the intricacies of each (see Figure 1), it was determined that several elements of Artful Learning and TETAC, along with the theoretical and research underpinnings of art criticism would support and promote the basic tenets of the *Writing Through the Arts* professional development program. The attributes that would best meet the needs of the students and teachers in this study included: (a) continued development of student's higher order thinking skills, (b) an on-going emphasis on writing and writing development, (c) the support of active engagement and involvement of parents, communities, arts organizations, school-reform networks and public and education professionals, (d) building support for learning in the arts as an equal part of the regular core curriculum, and (e) integrating a comprehensive approach to arts inquiry with other elements of school reform.

Development of the Program

Writing Through the Arts had as a major strategic objective the implementation of a sustained professional development program. Teachers from two high-need school districts whose students scored low on statewide standards-based writing assessments were presented with strategies for using the arts to enhance student writing abilities. The focus of the program was to deepen teachers' understanding of writing processes and to build understanding of how the pedagogical strategies of active learning and inquiry can be used to support state academic standards and curriculum frameworks. The WTTA program was well-aligned with the pedagogical standards developed by the National Board for Professional Teaching Standards (NBPTS). The arts were utilized as the mechanism for continuity, critical inquiry, and contextualization of the curriculum. Teachers who participated in the summer training created three writing units that they implemented throughout the school year. In addition, teachers collected and analyzed student writing samples using the state's standards-based writing rubric. Furthermore, the professional development was designed for sustainability through a train-

the-trainer component. Former participants were invited to share their units and their WTTA experiences working in the classroom. Additionally, outstanding former participants attended seminars and assumed instructional duties. The project intertwined elements of the scientifically-based school reform models of integrated curricula: Artful Learning (Jones, Fernandez, Mosby & Vigil, 2004) and the Transforming Education Through the Arts Challenge (2005). These tools assisted teachers as they created a literate environment for the students in the schools they served.

Writing Through the Arts was designed to help students achieve mastery in the following writing standards:

1. **Writing Process:** The writing process includes prewriting, drafting, revising, editing, and publishing. Students progress through these stages to write clear, coherent, and focused paragraphs and essays. In addition, they learn the six traits of writing: ideas and content, word choice, organization, voice, fluency, and conventions (Spandel, 2005). With the arts as a springboard to writing, students achieve knowledge, comprehension, application, analysis, synthesis, and evaluation expertise to bring to their writing (Bloom, 1956).
2. **Writing Applications:** Through the exploration of different types of writing and the characteristics of each, students become proficient at narrative (stories), expository (informational), descriptive (sensory), persuasive (emotional appeal), argumentative (logical defense), and technical writing. Additionally, their writing demonstrates an awareness of audience and purpose.
3. **Written English Language Conventions:** Conventions include the grade-level-appropriate mechanics of writing, such as penmanship, spelling, grammar, capitalization, punctuation, sentence structure, and manuscript form. With art integration students achieve knowledge, comprehension, and application expertise.

Program Description

Participants

Participants were 37 classroom teachers in grades 2 through 9 and from two high-need school districts, one large inner-city and one small urban, that had already established a history of collaboration with the university through a professional development school initiative. Ninety percent of the teacher participants came from schools with free and reduced lunch rates over 50% as reported in teacher questionnaire responses. Participating teachers on average had a median of six years of teaching experience.

This group of 37 participants experienced 45 contact hours of professional development during a two-week summer workshop supported through

an Improving Teacher Quality Partnership Program grant. In addition, approximately 10 hours of group reflection and review took place during the remainder of the school year. After completion of the summer workshop and follow-up contact meetings during the school year, participants received three hours of graduate credit, funded by the grant.

Workshop Framework

As part of the grant funding, participants also received course materials. These included a variety of materials that were carefully chosen to meet workshop goals. The following materials were included:

- *Tar Beach* (Ringgold, 1991), a children's book featuring the author's work with quilts.
- *50 Strategies to Develop Strategic Writers* (Tompkins & Blanchfield, 2005).
- *Writing Through the Arts: Teacher Resource Book* (Bauserman, Quatroche, & Cutter, 2005). In addition, a variety of course readings were available on-line for participant access during the workshop. These readings included articles on principles and elements of art, art criticism, the writing process, and the language arts, especially writing.

Initially, course content included the introduction of a traditional method of looking at and thinking about works of art through a critical model (Feldman, 1970; Mittler, 1973, 1980). Through the procedural stages of description, analysis, interpretation, and evaluation, students were led to a more in-depth understanding of art (Chapman, 1992).

- **Description Stage:** By thoroughly noting those observable qualities in a work of art, viewers avoid jumping to premature judgments and conclusions. The objective in this stage is to make a complete examination of the work through an inventory of those things that are seen. For example, is it a painting, a drawing or a sculpture? What is the subject matter? What is the title? What objects, shapes, or colors are present?
- **Analysis Stage:** In this stage the viewer now considers how basic elements of art (line, shape, color, texture, space, and light) are being used for effect and what visual relationships exist. For example, does a particular shape dominate the artwork? Do certain lines reveal a pattern or tend to direct the eye? Does the lighting show contrast that creates a mood?
- **Interpretation Stage:** This stage is focused on discovering meaning and intent. Why did the artist create the work, and what does it mean? No interpretation is complete without some research. Deducting a

plausible explanation often relies on more than what is seen. The particulars about an artist's life and the era that she or he lived will often reveal a plausible interpretation.

- **Evaluation Stage:** Once previous stages have occurred, viewers are now prepared to judge the successfulness of the work of art. Though the work may be considered successful, the viewer may still not care for it. As with professional art critics, personal taste becomes less of a focus in establishing an artwork's strength. Questions that direct the evaluation stage include: Under what conditions is this work worthy of serious attention? What environment is best suited to its display? Are there particular viewers who would find the work more pleasing?

This foundation of art criticism provided a format for which writing skills could be developed. For example, the levels of art criticism are developmental in nature. Students are able to describe before they can analyze, interpret, or evaluate. Critical thinking skills are engaged as students progress through these developmental stages. Similarly, in developing writing skills, writers must be able to describe what they see in an artwork before they can analyze, interpret, or evaluate. Descriptive pieces of writing can also include narration. Compare and contrast writing can exemplify the analyzing stage. Drawing conclusions and inferences involves interpretation, and finally, persuasive writing utilizes the evaluation stage. As can be seen by this close alignment, merging art criticism and writing becomes a natural blending of these two content areas.

Further course activities included the writing process, six traits of writing, visual thinking strategies, development of higher-order thinking skills, and assessment of writing products. These topic areas were taught in an integrated fashion. A sample lesson might include developing voice (one of the six traits) to demonstrate persuasive or interpretative writing. In addition, participants would use the writing process to create their writing sample. Many writing activities were included in the workshop, such as descriptive writing, evaluative writing, and writing to a variety of short prompts. Participants were also asked to create a brochure that explored their feelings about themselves as writers. A field trip to a museum of art was included as part of the course content and provided an excellent resource for artwork selection for creating the writing units. Finally, participants worked in small groups to produce integrated units for teaching writing through the arts in their classrooms, units that were to be implemented during the following school year.

During the summer workshop instructors modeled various teaching strategies and helped participants think about the concepts contained in the state English Language Arts Standards. Participants had opportunities to discuss writing with workshop instructors and other participants and to discuss how

to use their knowledge to help students in their classrooms learn. A wide variety of learning experiences were used to help participants implement the state language arts curriculum framework. These included website searches, discussions centered on related readings, and the possible connections of literature, movies, artworks, music, drama, other arts, and writing tasks. Instructors focused on how these materials and experiences could be adapted to meet and exceed the state writing standards while also meeting the individual needs of participants' students.

Requirements for the three writing units developed by participants included a variety of components that integrated art criticism, the writing process, and six traits. First participants had to develop criteria for selecting appropriate art for each unit (Appendix A). A piece of artwork was selected that met the developed criteria. Participants validated their art selections through the previously developed selection criteria and appropriateness to classroom content and context. Then participants had to develop three unit plans that included academic standards, goals and objectives for each unit, technology resources, and materials. Two of the six traits of writing were selected as a focus for the units as well as a type of writing product to be developed by the students. Participants had to identify accommodations that would need to be made for the diverse learners in their classrooms. Finally, the participants developed assessment tools to aid in evaluation of student writing products.

One middle school group of participants selected the painting by Theodore Groll called *Indianapolis, at Dusk (2006)* for their first unit. The chosen artwork met the selection criteria of being age appropriate, not glorifying violence or sex, representing diversity, and challenging students to think critically. The participants identified five language arts academic standards, two social studies standards and one level of art criticism (description). After teacher-led discussions to help students draw rich descriptions from the painting, students were expected to write a compare and contrast piece by comparing Groll's painting with a modern day photograph of Indianapolis. Description was the focus of their art criticism discussions and writings by choosing their favorite, either the painting or the photograph, and defending their choice through its descriptive features. During the writing process, the participants developed sentence fluency with their students. Five accommodations were identified to help participants meet individual needs in their classrooms. For example, students were assigned a writing buddy or provided a word bank of group generated descriptive words to enhance word choice. Finally, the writing product was assessed using the state grading rubric for ideas and conventions (Appendix B).

Follow-up Contact

Three follow-up meetings were scheduled to provide support for the participants through the school year. At the first follow-up meeting participants were asked to score a variety of pieces of student writing using the state writing rubric which included the following categories: ideas and content, organization, style, voice, and language conventions. Participants read the same writing piece and independently scored the piece using the rubric. Instructors tabulated results for each piece and followed up with a discussion about the scoring decisions the participants made. After the discussions and several practice pieces, participants had an acceptable inter-rater reliability score of .90. It was important to establish some reliability on scoring to lend credibility to the ability of the participants to score their student writing samples for the pre and post tests as these were used for statistical analyses of student growth.

The second follow-up meeting was scheduled after the implementation of the first writing unit. The purpose of the meeting was to debrief the participants regarding their successes and concerns about the first writing unit they taught. Discussion during this meeting focused on the value of concentrating instruction on the descriptive elements of an artwork as a beginning point rather than expecting students to also analyze, interpret and evaluate an artwork. Other concerns focused on the evaluation of student writing and the effective use of the evaluation rubric. Participants shared what went well and their excitement over the process. The third follow-up meeting was used to celebrate the successful completion of the project, to seek suggestions to improve the workshop for the second year of implementation, and to recruit participants to be co-trainers as part of the train-the-trainer model to sustain the workshop model when the grant funding was no longer available.

Teacher Feedback: Did We Make a Difference?

In an era of outcomes based education, we were required to address the important question, "Did we make a difference?" The above curriculum was intended to provide teachers participating in the workshop with strategies for using the arts to enhance students' writing abilities and to provide them with sustained professional development to accomplish the task. Prior to the workshop, an assessment plan was written that focused on assessing teacher participants' attitudes, perceptions, and professional development goals, as measured through the use two kinds of questionnaire-related processes. One had to do with the impact of the workshop on teachers' attitudes and perceptions about writing, and the other with the impact of the WTTA program on their teaching of writing. A brief description of the questionnaires follows:

- **Analysis of Closed-Ended Questionnaires, Pre- and Post-Workshop:** An initial workshop questionnaire asked participating teachers to respond to several questions reflecting their attitudes and perceptions about what students should learn about writing. First, participants were asked to complete a pre-workshop questionnaire containing questions about the teaching of writing (see Table 1 for questions), on a five-point Likert scale, ranging from (1) meaning “strongly disagree” with statements having to do with these themes, and (5) meaning “strongly agree.” Participants completed the same questionnaire at the end of the workshop; pre- and post questionnaire results were then compared using descriptive statistics and statistical tests of differences. The pre-questionnaire had a Cronbach’s alpha score of survey reliability of .74 and the post-questionnaire a score of .84, indicating acceptable levels of reliability. Factor analyses were also conducted on the pre and post closed-ended questionnaires to observe any perceptible changes in underlying factors in the questionnaire responses. For example, an analysis of pre-workshop answers to the questionnaire might reveal that participants solely emphasized punctuation and grammar when teaching writing, while post-workshop questionnaire responses might reveal an emphasis on participants focusing on the creation of meaning and collaboration when teaching writing. It was felt that any observable shift in underlying factors revealed by this type of analysis might cause us to reflect on whether or not the workshop was, in full or in part, responsible for such shifts.
- **Analysis of Open-Ended Questionnaires, Pre- and Post-Workshop:** Participants were also asked to complete a questionnaire on the first day of the workshop containing four open-ended questions regarding what they felt were (a) the best activities when teaching writing, (b) best strategies to use when teaching writing, (c) goals they achieved in teaching writing, and (d) what they thought were the most important things students should learn in writing. From the responses to these questions, a follow-up questionnaire was developed by tallying like responses according to each of the above four general open-ended questions, listing them on a sheet of paper from highest to lowest tally, and then asking participants three days after they completed the open-ended questionnaire to rate their level of agreement with each tallied response on a five-point Likert scale, ranging from (5) for “strongly agree” to (1) for “strongly disagree.” Responses with average scores of 4.0 or higher and with standard deviations lower than 1.0 were considered items of agreement (Robertson, Line, Jones, & Thomas, 2000). Eight months later, after participants had implemented the curriculum taught in the workshop, they were asked to

Table 1. Results of Pre and Post Workshop Questionnaires

QUESTIONS	PRE-WORKSHOP	POST-WORKSHOP
Students should engage in prewriting	4.64	4.66
Students should engage in reflection	4.22	4.27
Writing lessons should include practice writing within disciplines	4.42	4.38
Students should edit before submitting writing	4.69	4.55
Students should use reference materials	4.39	4.24
Students should have age appropriate understanding of punctuation	4.69	4.55
Students should repeat words and phrases in writing	3.00	2.83
Formal writing instruction is necessary	4.44	4.28
Students' initial encounters with writing should focus on meaning and mechanics	3.92	4.66***
Students should be introduced to new writing skills as part of their instruction	4.36	4.28
Students should demonstrate age-appropriate respect for differences in people in their writing	4.19	4.38
Students should demonstrate age-appropriate respect for differences in groups of people in their writing	4.06	4.31
Writing lessons should include various instructional methods	4.64	4.59
Writing lessons should include various instructional strategies	4.67	4.69
Working with colleagues increases knowledge about teaching	4.64	4.72
Writing lessons should include practice writing across disciplines	4.56	4.55
Ongoing assessment enables me to monitor the writing skills of my students	4.25	4.62**

*=significant at <.05

**=significant at <.03

***=significant at <.01

re-rate these tallied responses in order to observe any changes in items of agreement from the beginning to the end of the program.

Table 1 presents the results of the pre and post workshop closed-ended questionnaires. For the most part, post workshop averages indicated that participants continued to understand the importance of diversity in teaching methods and strategies, and in their belief that students should edit what they write, use reference materials, etc. It appears that the workshop made a significant difference in respect to participants' belief that writing should focus on meaning and that ongoing assessment enabled them to monitor the writing skills of their students, both of which were important aspects of the *Writing Through the Arts* grant.

Pre- and post factor analyses of the workshop questionnaire results suggested that the workshop also assisted participants in better understanding the importance of helping students focus on meaning, reflection, and the

organizational process in writing. Specifically, questions on the post questionnaire could be more easily categorized into independent “factors” emphasizing the importance of teachers’ roles in helping students focus on meaning, on students’ reflecting on what they write, and on students organizing their thoughts in ways that focused on communicating meaning. This supports the statistical results in Table 1: teacher participants found it increasingly important that students focused on meaning rather than only mechanics.

When the pre- and post tallied responses to the open-ended questionnaires were compared, it was clear that the participants felt that the use of rubrics and checklists and helping students to write with a specific purpose were important professional goals to achieve; both of these items were rated significantly higher in the post-program questionnaire. When a factor analysis of the tallied responses to the open ended questions were compared pre- and post- program, there was a clear shift. Participants’ responses to the tallied responses on the pre-program open-ended questionnaire focused more on simply teaching writing as a primary goal, compared to a more specific focus on assessment in the teaching of writing as a primary goal on the post-program questionnaire. These findings led us to believe that WTTA helped teachers learn more about and implement better assessment in the teaching of writing.

Discussion and Implications

The workshop was successful in enhancing participants’ perceptions about the effective teaching of writing, in helping them enhance the assessment of writing, and enhancing a feeling of efficacy in so doing. Participants generally believed that feelings of efficacy, creativity, emphasis on process in teaching writing, and teachers’ leading students through the writing process were important themes.

School district professional development for these two districts focused on six traits of writing. As a result, this tended to focus participants’ thinking concerning the teaching of writing. State testing requirements also tended to focus participants’ objectives for writing instruction on requiring students to write to a prompt and to include details in writing samples. It is interesting to note that the dependency on writing prompts made it difficult for participants to evaluate writing that did not include a “testing” prompt.

Another lesson learned as a result of this program is that it might be important to spend time reviewing the importance of process-oriented writing and revision. For example, a review of the open-ended evaluations completed by teachers at the end of the school year indicated that, when asked about their professional goals in the teaching of writing, they did not mention achieving the goal of helping students understand the importance of revision as much as they had in prior open ended questionnaires. This suggests perhaps that

participants equated editing with revision, rather than seeing revision as a distinct and integral part of the writing process. Although it is difficult to gauge whether this difference was due to participation in the program, it did present cause for reflection. Perhaps it will be an item of emphasis in future workshops.

In conclusion, educators need on-going support which includes teaching methods that will aid them in developing students who can write and think well. In an era of No Child Left Behind (2002), it is even more crucial that students succeed. Innovative strategies such as those that are part of *Writing Through the Arts* can be important tools that can help achieve these goals and encourage the kind of good writing that comes from good thinking.

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Appendix A: Selecting Criteria for the Artwork

Local Community

- Religious/Spiritual Values
- Political Leanings
- Setting: Rural, Urban, Inner City, etc.

Home Environment

- Economic Issues
- Parent/Family Structure
- Cultural Roots

School Environment

- Size/Location
- Grade Spans/Scheduling Issues
- Ethnicity/Culture Variables
- Curricular Issues
- School Rules and Behavior Issues

Class Environment

- Size/Space Variables
- Student Characteristics: Age, Gender, Development, Disabilities, Academically Gifted, etc.
- Learning Goals and Objectives

Artwork Selection

- Subject Matter
 1. Will students be able to relate?
 2. Does it offer a real connection to your goals and objectives?
 3. Is appropriate considering the profile of your class, school, and community?
- Medium/Physicality
 1. Is the material from which the artwork is made appropriate and understandable?
 2. How important is the material or size of the artwork?
- Visual Information
 1. Is there enough visual information to hold student interest? Might there be too much?
 2. Is the artwork accessible and easy to reproduce?
- Reputation
 1. Is the artwork or artist too well known?
 2. Does the historical background behind the creation of this work, or the artist support your learning objectives?
 3. Is the reputation of the artwork or the artist appropriate for your class, school, and community values?

Appendix B: Grading Rubrics for Applications and Conventions

Sample Applications Rubric				
SCORE LEVEL	IDEAS & CONTENT	ORGANIZATION	STYLE	VOICE
	DOES THE WRITING SAMPLE:	DOES THE WRITING SAMPLE:	DOES THE WRITING SAMPLE:	DOES THE WRITING SAMPLE:
6	<ul style="list-style-type: none"> Stay fully focused? Fully accomplish the task? Include thorough, relevant, and complete ideas? 	<ul style="list-style-type: none"> Organize ideas logically? 	<ul style="list-style-type: none"> Exhibit exceptional word usage? Exhibit writing that is fluent and easy to read? 	<ul style="list-style-type: none"> Demonstrate effective adjustment of language and tone to task and audience?
5	<ul style="list-style-type: none"> Stay focused? Fully accomplish the task? Include many relevant ideas? 	<ul style="list-style-type: none"> Organize ideas logically? 	<ul style="list-style-type: none"> Exhibit more than adequate word usage? Exhibit writing that is fluent and easy to read? 	<ul style="list-style-type: none"> Demonstrate effective adjustment of language and tone to task and audience?
4	<ul style="list-style-type: none"> Stay mostly focused? Accomplish the task? Include relevant ideas? 	<ul style="list-style-type: none"> Organize ideas logically? 	<ul style="list-style-type: none"> Exhibit adequate word usage? Exhibit writing that is fluent? 	<ul style="list-style-type: none"> Demonstrate an attempt to adjust language and tone to task and audience?
3	<ul style="list-style-type: none"> Stay somewhat focused? Minimally accomplish the task? Include some relevant ideas? 	<ul style="list-style-type: none"> Exhibit an attempt to organize ideas logically? 	<ul style="list-style-type: none"> Exhibit minimal word usage? Exhibit writing that is mostly fluent? 	<ul style="list-style-type: none"> Demonstrate an attempt to adjust language and tone to task and audience?
2	<ul style="list-style-type: none"> Exhibit less than minimal focus? Only partially accomplish the task? Include few relevant ideas? 	<ul style="list-style-type: none"> Exhibit a minimal attempt to organize ideas logically? 	<ul style="list-style-type: none"> Exhibit less than minimal word usage? Exhibit writing that is hard to read? 	<ul style="list-style-type: none"> Demonstrate language and tone that may be inappropriate to task and audience?
1	<ul style="list-style-type: none"> Have little or no focus? Include almost no relevant ideas? 	<ul style="list-style-type: none"> Organize ideas illogically? 	<ul style="list-style-type: none"> Exhibit less than minimal word usage? Exhibit writing that is hard to read? 	<ul style="list-style-type: none"> Demonstrate language and tone that may be inappropriate to task and audience?

Sample Conventions Rubric

Score 4	<p>Does the writing sample exhibit a good command of language skills? In a Score Point 4 paper, there are no errors that impair the flow of communication. Errors are infrequent and will generally be of the first-draft variety; they have a minor impact on the overall communication.</p> <ul style="list-style-type: none">• Do words have very few or no capitalization errors?• Do sentences have very few or no punctuation errors?• Do words have very few or no spelling errors?• Do sentences have very few or no grammar or word usage errors?• Writing has very few or no paragraphing errors.• Writing has very few or no run-on sentences or sentence fragments.
Score 3	<p>Does the writing sample exhibit an adequate command of language skills? In a Score Point 3 paper, errors are occasional but do not impede the flow of communication; the writer's meaning is not seriously obscured by errors in language conventions.</p> <ul style="list-style-type: none">• Do words have occasional capitalization errors?• Do sentences have occasional punctuation errors?• Do words have occasional spelling errors?• Do sentences have occasional grammar or word usage errors?• Writing may have occasional paragraphing errors.• Writing may have run-on sentences or sentence fragments.
Score 2	<p>Does the writing sample exhibit a minimal command of language skills? In a Score Point 2 paper, errors are typically frequent and may cause the reader to stop and reread part of the writing. While some aspects of the writing may be more consistently correct than others, the existing errors do impair communication. With a little extra effort on the reader's part, it is still possible to discern most, if not all of what the writer is trying to communicate.</p> <ul style="list-style-type: none">• Do words have frequent capitalization errors?• Do sentences have frequent punctuation errors?• Do words have frequent spelling errors?• Do sentences have frequent grammar or word usage errors?• Writing may have occasional paragraphing errors.• Writing is likely to have run-on sentences or sentence fragments.
Score 1	<p>Does the writing sample exhibit a less than minimal command of language skills? In a Score Point 1 paper, errors are serious and numerous; they often cause the reader to struggle to gain the writer's meaning. Errors are frequently of a wide variety. There may be sections where it is impossible to ascertain what the writer is trying to communicate.</p> <ul style="list-style-type: none">• Do words have many capitalization errors?• Do sentences have many punctuation errors?• Do words have many spelling errors?• Do sentences have many grammar and word usage errors?• Writing may have errors in paragraphing, or paragraphing may be missing.• Writing is likely to have run-on sentences or sentence fragments.

MULTICULTURAL DIMENSIONS
OF LITERACY

GETTING YOUR BOOK PUBLISHED: LESSONS FROM A BLACK, FEMALE WRITER

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Abstract

This narrative essay describes the steps involved in creating book proposals and manuscripts for academic presses to review. The author gives examples from her experiences after producing five books that have been published in the last four years. She also encourages authors to create their own rituals for the journey of writing a book-length manuscript. An appendix with a sample proposal is attached to help novice writers involved in creating their first proposals for review by publishers.

I have written five books, or been involved with the production of five books, since completing my dissertation in 1997. The journey could best be described as an adventure since I had no formal preparation for the obstacles and lessons that would come of the effort. After my first book was published, an edited volume with Dr. Lisa Delpit, and the second volume was on its way through the publishing maze, I was told by one colleague in the school School of Education that I should “cool it” with the books. This was the reception to the news that my second book was on its way and expected to be completed the summer of my fifth year as an academician. I remember saying in shock that I felt my writing was a “calling” and that I treated it like a gift. With those words out of my mouth, a new commitment to getting down my ideas and sharing them with a wide public audience became part of my agenda of being successful as an academician.

Some scholars talk about the absolute importance of knowing your audience when you begin to craft a piece for publication. I would say that I need to know my question before I begin writing. Professor Asa Hilliard III (Asa Hilliard III, personal communication, January, 2000) once told me that the minute I figured out what the question was on any subject, I would know

how to find the answer. It is important to me to understand the goal of the communication that my writing should complete. This writing process facilitates my confidence in the ability to communicate through the written word (Atwell, 1998; Calkins, 1986; Graves, 2002). With the books that I have published, three of them being edited volumes, I knew I could find answers to questions about the way Black students achieve success in particular learning environments. The best way to find out the solution to the questions that I posed about these successful students, that is, what was necessary to support student success, was to put the book together and see what it would lead me to understand.

Five books later, I am still caught off-guard when one of my colleagues asks me how I could write so much. I wonder to myself why I have not written more. I also wonder if the question has anything to do with the low-academic expectations that inform the conversations about Blacks and success in schools. There are so many questions that I want to answer. Most of them are generated by the interplay with pre-service teachers, and I just need time to set down my thinking in print. As Lucy McCormick Calkins (1986) said, "We write to learn."

In this effort to understand what I think about writing and publishing books, I decided to write about my understanding of the way I go about producing a book so that other colleagues could gain from my experience. Not entirely sure from where the actual ideas come, I am inclined to agree with Donald Murray (1998) when he suggested that we write what we don't know. I, like Murray, believe that we write to learn what we don't know that we know. Writing down our thoughts allows us to discover meanings and make connections with our experiences that we otherwise might not do outside the act of producing the written word. It is a daring attitude that must be maintained in order to achieve clarity, organization, and ultimately a new perspective on who we are and what matters to us.

The first step in my journey to producing a book is an idea. Many of my ideas seem to have come from conversations with students and colleagues. This week I had a class of 25 students who were working on creating activities based on their understanding of Multiple-Intelligences Theory (Gardner & Hatch, 1989). I have begun imagining a "tool box" full of activities that teachers could use in their high-school classes. I am putting that book idea on the back burner until the semester ends and I recover from teaching all these pre-service teachers.

The next step on the road to publication is a visit to the Internet to find out what books are written on the topic that I am interested in researching. So far, the Amazon.com site has provided ample information about my interests. Black women and education is a topic about which many authors have written, however, I still feel that there is a lot more to be said on the

topic. My research on the General Educational Diploma, Black women and the Ph.D., and Black women and literacy has led me and my co-authors on expeditions that provide deeper learning about each issue or project under study. Once I find out who publishes books in the area of scholarship that interests me or a related area of research, I then move on to do research on those publishers and their proposal requirements.

A rubric of the publishers and the requirements they stipulate in their proposal forms can give a writer a quick overview of the kind of thinking that has to be done before submitting an application to an acquisitions editor. In general, the publishers will ask for information regarding the title, purpose, scope, approach, contribution to the field, uses of the book, features of the proposed text, potential text adoption in schools, and departments that you can identify, and the names of references so that they can have people review the text.

Here is a sample of publishing companies and some of the questions they ask in reference to a proposal for a book contract:

REQUIREMENTS	BEACON PRESS	JOSSEY-BASS	PETER LANG PUBLISHING	PRAEGER	SAGE PUBLICATIONS
Need	X	X	X		X
Audience	X	X	X	X	X
Competition	X	X	X	X	X
Contents of Book	X	X	X	X	X
Résumé		X	X	X	X
Length		X	X	X	X
Knowledge Base	X	X	X	X	X
Timetable	X	X	X	X	X

Beacon Press asks about the subject of the manuscript in a one-page synopsis form, and reasons why you, the author, are best qualified to write a book on this subject.

It has been my experience that the proposal is much easier to complete if the book has already been written, or there are several sample chapters to offer the publisher. Without a clear idea of what the book is saying and for whom it is being written, the words of the proposal will not convince the publisher that it is a good project.

I have found that writing a book changes me and that I am different after following the process leading to a public presentation of my thoughts on a subject. It is also true, as several elders in the academy have advised me, that trying to write a book while teaching, attending faculty meetings, going to conferences to present papers, advising students, reading dissertations, and conducting all the normal business of a disciplined life, leaves little room for the concentrated effort that a book demands. It is better to finish the project

as quickly as you can given the time constraints of a busy life and then start “shopping it around” to publishers. The ideas for the best places to send the proposal for the manuscript sometimes evolve as the book idea evolves.

The next step after doing the research on the Internet for possible publishers is to do research on the topic. My last book was about Black women who had earned their Ph.D. and their journeys as academicians. Several books have been published on this topic, but none of them represented a case study of the experiences of a group of scholars at one site. Knowing the difference in my approach to the writing of this story compared to the other books available on the topic of Black, female scholars, allowed me to write with a sense of confidence. I understood that my book was going to teach the reader something different about the topic of Black, female Ph.D.s. I also came to understand that the energy which propelled the writing came from the necessity I felt to learn about the topic. As I interviewed the academicians, I learned from their interviews with me. My appreciation of their strength of character and the legacy of pride in academic achievement that these women represented created an urgency in me to tell their story.

During the writing of the Ph.D. stories, I sequestered myself in my house for six months while writing this book. My decision to take a leave of absence from the academic environment was based on the feeling that I would not be able to contain the ideas for this book over the course of a year of faculty duties and other “distractions.” I wanted to do the writing “passion hot,” and get the book out of my system. The data collection took about eight months and I was very excited about what the interviews taught me and what I would discover once I began to analyze the transcripts of the women’s conversations.

The interviews revealed several themes including the influence of the family, the call to teaching, the journey as academic writers, and the need to be community servants. From these strands, I was able to plan the book chapters and dedicate blocks of time to choosing the best quotes to represent the themes that I found across the interviews.

Each person has their own rhythm of writing for academic publications. I think of myself as a balloon that has to be full of air before it is able to drift off into the great, blue sky. The “air” in this case is all the research that I read and the patterns that I see in my data. The bright, blue sky into which I drift is the huge world of ideas and the meanings that I must make clear to my audience. My mind has to be full of the data and the insights that I glean from thinking about the lessons that I learned from the participants before I begin to shape my manuscript. I think of the process of “morphing” into the participants in my research as an act of meditation. Once I get in the zone where I can hear the voices of the people I interviewed, I am led to the quotes that best describe their knowledge.

I have made myself commit to writing five pages a day when I am writing a manuscript. This production of five pages may take all day to create on some occasions, but I feel the need to show some evidence that I was thinking deeply about the subject before night falls. I need the hard copy in my hand to give me courage to go on to the next five pages the following day. It is important that you remember to count the five pages as 10 paragraphs. That seems to make it easier to produce the document. Two paragraphs a page, with breaks in between, is a good way to con yourself into doing the task.

It is also important when I am writing my first draft that I remind myself not to be picky about grammar, punctuation, citations, and orderly timelines. When I get hung up on those details it means that I am thinking about the final product. The best thing I can do to coax the pages out of my mind onto the computer is to stay away from the anticipation of the results. It is hard to stick to the plan that is laid out for each day's writing when you feel anxious to be done with the project and begin celebrating your victory over sloth and self-doubt. That's why the plan for daily doses of writing is put in place. You need to remind yourself constantly that many drops make the ocean and that a book gets written one day at a time. In fact, I keep a copy of a poem that was written by Wendell Berry (2005) on my desk where I can see it. The piece is called "How to be a Poet" and it reminds me to sit down and be quiet.

In fact, I tell my students that I write two paragraphs at a time. That's about how much it takes to fill up a page in my style of writing. After each page I give myself a gift of some sort. Sometimes the reward is a movie, a Tai Chi class, a walk in the neighborhood, a call to a friend, a visit to the neighborhood Goodwill store, or a good meal. I prepare my meals when I am doing a writing project because the ritual relaxes me and allows my mind to think about very different things than the main topic of the next paragraph in my book.

Rituals, for me, are important in the journey to the successful completion of a manuscript. I did not realize that I had a set of behaviors that I needed to perform along with the actual writing activity until I found myself in Greece, miles away from home, for three weeks. Cut off from my kitchen where I could create my meals, the music that I had carefully recorded on audio tapes so that I would be forced to leave my seat at the computer every 45 minutes, and the mailman who regularly delivered my letters around noon every day, I was bereft of timely breaks from the hard work of sitting still and focusing on the writing at hand. What I was able to maintain in Greece, however, was the rhythm of creating two to three paragraphs at a time. When that writing was completed, I found a way to reward myself. My new pattern of rewards included walking along the ocean front, shopping for food at the green grocers, or checking my email account at one of the local Internet restaurants near my hostel.

After I revise my manuscript and feel that it is safe to send it into the world, I ask a colleague to look at the draft with a specific goal in mind. I might ask the writer to tell me what I have left out in the present version of the paper. Or, I might suggest that she look for places where the quotes that I use could be improved. Sometimes I just need someone to say that they hear what I am saying in the chapters and then lead me in a discussion of the points that I make. The important thing is that (a) I feel that I am ready to go public with my writing; and (b) that I give the reader a job to do and, thereby, save myself from plowing through their editorial comments that might only serve to confuse me at this point in the process.

With the confidence that I have done the best possible job on the manuscript up to that point in time, I begin sending out proposals to publishers with copies of the first three chapters. Sometimes the publishers do not want to see the chapters right away but ask for a timeline by which the book will be completed. It is one of the most delicious feelings to be able to write in a cover letter that the book is complete and ready to be reviewed. I have also done proposals long before the manuscript was ready. I am glad to report that those were early, never to be repeated, stages in my writing.

It is important that each publisher on my list gets the specific items that are requested on their proposal form. Those who do not have specific requests get a duplicate of another publisher's formula for the application. I keep a list of publishers available because in one case I had to send out proposals to at least eight publishers before I got a letter of interest. The longest I have had to wait for a contract from a publisher is eight months. I am very fortunate that I have been able to do research and select companies that are interested in the work that I produce. However, I know that the answer to our applications for support comes if we keep asking for support. Writers need to be actively engaged in seeking an audience for their work or it never gets out to the public.

A clean manuscript is also sent to selected reviewers whom I believe will be important to quote on the back cover of the book. I have written to people who have published in my area of research and got warm encouragement to send my manuscript for them to read. I ask that they only write a comment if they feel that they can support the book. So far, I have had writers send their short quotes within my timeframes and that has made it easier for the publisher to do the production steps necessary to create the book design.

Of the five books that I have been involved in creating, I have commissioned all the cover designs. It is much easier for me to work with a cover designer who I know and have a rapport with than to send my book off to a publisher and let the company's production team make a decision about what picture should go on the book cover. I pay the cost of the designer and it is worth it because I get another opportunity to work with an artist and create a graphic that represents my thoughts and feelings about the content

of the text. The journey to finding the right image for the book cover informs my appreciation for the many hands that touch a manuscript before it is available to the public. This experience of collaborating with other professionals takes me out of the zone of imagination where I talk about “my” book and into the world of reality where I present “our” book for purchase.

Editors at the publishing house send back the manuscript with a request for clarification or changes to the script. Revising is a time-consuming job, but the edits must be done quickly in order to keep the production process on schedule. When there is a request that I simply cannot fulfill, I explain my reasons to the editor and hope that she will see my point of view. If not, I make the recommended change. As I understand it, the book belongs to the publisher after I sign the contract. I tell myself that I am working for the publisher, the owner of the book, when the editor makes a request for changes. The first response from the copy editor is only one of the times that the manuscript will be returned with notes written in the margins. The quicker I get over my “attachment” to my first draft, the better things will go on the journey to the final-edited manuscript.

When the revised copy of the manuscript has been accepted by the editor, the production team moves into action. The book cover material has to be finalized and the author’s biography has to be prepared. I have used bios from previous books to save time and effort. This is when I get very happy that I have a recent black-and-white photo that I can add to the design for the back cover. I feel it is important that my audience puts a face with the name on the book. If making the product look good means making an investment in an expensive photographer, I am willing to make the effort. Presentation counts in this market place.

I have only been asked once to write a paragraph for the advertisement of the book that was being prepared for publication. Of course I panicked and then I looked at the advertisement that a book store created for one of my earlier books, *The Skin that We Speak: Thoughts on Language and Culture in the Classroom* (2002) and I decided to imitate their style. Common sense helped me to craft a short blurb for the marketing department at the new publisher’s office. There are enough models around us to study and there should be no hesitation about learning from those who came before us. After all, as one writer once told me, there are no new ideas in the world. What we do have, however, is new attitudes to those ideas. If the marketing people don’t like what you create, they will change it, but the important thing is to give them something to work with.

The day finally comes when the published book is in your hands. Thankfully, you have not sat on your fingers from the time that you sent off the final-edited manuscript to this wonderful day in your life as a writer. You have spent your days looking for the journals that cover books on your sub-

ject and finding out who the editors are so that you or your publisher can send them copies of the book. Wisdom has led you to ask colleagues to organize sessions where you can talk about your book at schools or at the special-interest group meetings where they preside. If the timing is right, you have been booked for appearances at international meetings of professionals so that you can sign books and donate copies to various organizations. The list of engagements may extend for a while because people find out about your work and your generosity with time and contributions to various literacy efforts. This is also a good time to search the web for contacts at the offices of the ambassadors of various countries and send in requests to do a presentation based on your book. Donating profits from the sale of the books at an event is another way to convince people that they should include you in their annual literary calendar.

Eventually you come to the point where you have talked enough about one book to last a lifetime. Time moves on and you find that you are also involved in creating another book and circumstances demand that you save your energy for that journey to publication. It is time to let go of the romance with the book that might have begun as an idea as long as five years ago. You invested your best thinking, writing, marketing, and speaking skills on behalf of your last publication. It is now time to move on and be fair to your new work in progress, the new book or journal article. People can read that book and you feel that it is safe to move on to a new passion. You can also apply the new skills that you acquired from writing and promoting the last book to the new production that is now keeping you awake at nights. Each new book writing journey feeds the creative process. Embrace the longing to publish, enjoy the thrill of finding a publisher, and luxuriate in the attention that a published manuscript attracts.

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Appendix. Urban Atlanta Coalition Compact Lessons Learned From a School Reform Effort

1. Title Possibilities:

- a. *An Urban Coalition: Lessons Learned from a School Reform Effort*
- b. *Many Voices on the Journey of School Reform: A Partnership of Universities and Schools*
- c. *Giving Voice to the Silenced: An Urban School Reform*
- d. *Racism, Research, and Educational Reform: Voices from the City*

2. **Need:** School reform is a hot issue in educational dialogue. Little debate exists questioning its mandate, but a great deal of assumptions and false promises of its success abound. This book will speak to the complexities of reform efforts but more specifically to the experiences of six different players in a metropolitan reform collaboration, involving five colleges and universities, three school systems, and seven schools. The contributors to the book are the director of the reform project; a superintendent of one of the school systems; a teacher in one of the elementary schools; three university professors—two of whom served as university fellows in the project, one who served as researcher and as an associate director of the Center where the project was housed; and a graduate student who served as a researcher in the program. The description of the lessons learned in the project through the lens of educators in divergent reform roles should bring a unique perspective to the national dialogue on school reform. The Principal Investigator of the Project, Dr. Lisa Delpit, is an internationally renowned urban educator who will write the introduction to the text. As a significant and “sought after” voice in the national dialogue about urban children and their communities, Delpit’s contribution to the project and the text should attract an abundance of readers.

3. **Purpose:** The book’s intent is to inform readers of the challenges and successes of a school reform effort through the eyes of six different educators, who played diverse roles in the collaboration. The text will include stories about the highlights of the program; the impact of racism on the reform effort; the struggles of communicating among administrators, teachers, parents, and students; the struggle to include the “missing voices” of the disenfranchised; the difficulties of working with foundations and meeting their demands; the lessons learned from the investigations and experiences of several different researchers, practitioners and the director.

4. **Contribution:** This book will add to the knowledge base on educational reform. Its distinct contribution is that its reform story is told through

individual, personal voices. While it involves the description of the complexities of multiple levels of engagement, because of the personal stories, it becomes more accessible reading than most reform texts for teachers and the public. The voices of disenfranchised parents, too often unheard, will be extensively documented. Along with adding to the reform literature, the book will also add to the literature about multiple K-16 partnerships; collaborations between mainstream universities and Historically Black Colleges and Universities (HBCU); cross-district school system collaborations; the impact of racism on school reform efforts; communication problems in school collaborations; parent and teacher struggles for equal engagement; issues of parental equity in school communities of diverse ethnic families; silenced voices of parents, teachers, and students of color in mainstream schools; issues of leadership that help or hinder reform efforts.

In addition, the insight offered by Dr. Lisa Delpit, a renowned urban researcher, scholar, and teacher, and Principal Investigator of the Project, will be invaluable as an invitation to other educators, researchers, parents, teachers to read the text to discover her perspective as well.

5. **Intended Audiences:** Urban teachers, school administrators, school boards, foundations, university administrators, professors, scholars, researchers.

Discipline: (1) Urban studies
 (2) Teacher Education
 (3) Teacher Leadership
 (4) Administrative Leadership
 (5) Educational Psychology
 (6) Foundations of Sociology

6. **Uses:** An easy-to-read resource for teachers, parents, administrators, school boards, and the general public when investigating school reform issues.

- As a text for pre-service and in-service courses that deal with “best practices,” and teacher and school change as well as issues of communication amongst diverse populations of parents, teachers, and school staffs.
- A supplemental text for leadership courses for principals and staff developers when working with issues of school change.
- A guide for those who want to investigate issues related to working with foundations in school change efforts.
- A text for anyone who deals with issues of diversity and racism in education.

7. **Length:** 175-200 pages

8. Outline of Contents and chapter-by-chapter descriptions:

Introduction: Dr. Lisa Delpit

Chapter 1: "Racism and Reform: The disadvantage of denial"/J. Wynne

Chapter 2: "Negotiating the power issues in reform"/An interview with the director /J. Wynne & F/Prescott-Adams

Chapter 3: "Leadership Is Everything: Investing in Professional Development"/ Betty Strickland

Chapter 3: "Finding the missing voices: Perspectives of the least visible families and their willingness and capacity for school involvement." Barbara Meyers/Dowdy/Paterson

Chapter 4: "Awakening The Dormant Spirit: One Teacher's Journey with UACC."/Paula White-Bradley

Chapter 5: "Poetry in the middle school classroom: an artist/activist and teacher collaboration leading to reform"/Joanne Kilgour Dowdy

Chapter 6: "Centrality of Race in Research and Reform"/Sibby Anderson-Thompkins

Chapter 7: "Bringing Harmony out of Chaos"/(Wynne/Dowdy)

9. Sample Chapters:

Joan T. Wynne:

Joanne Kilgour Dowdy:

Barbara Meyers, Joanne Kilgour Dowdy, and Patricia Patterson:

10. Related and Competing Works:

Much of the literature on school reform is written by authors who have not been participants; rather, researchers who look at it through an impersonal lens. Our text is a compilation of stories from "hands-on" participants in the struggle. Its stories reveal the intricacies, difficulties, and triumphs of democratic processes as they relate to school reform in seven different schools within three separate school systems in a large metropolis.

11. Competing Publications on School Reform Include:

Joyce L. Epstein. *School, family and community partnership: Preparing educators and improving schools.*

Robert Evans. *The human side of school change: Reform, resistance, and the real-life problems of innovation.*

Pauline Lipman. (1999). *Race, class and power in school restructuring.* Albany: State University of New York Press.

12. Potential Text Adoption: Sample Listing

1. **Temple University:** Urban Education Programs; School-Community partnerships
 2. **California State University:** Educational Psychology; Educational Leadership
 3. **University of Rochester: The Warner School Urban Studies Institute** Educational Leadership; Administration with a concentration in K-12 Education
 4. **University of Pennsylvania:** Education, Culture and Society; Evaluation of Programs, Policy, and Projects.
 5. **Boston University:** Department of Administration, Training, and Policy Studies; Diversity and Justice in Education
 6. **Rutgers: State University of New Jersey:** Social and Philosophical Foundations of Education
 7. **Teachers College/Columbia University:** Urban Education; Family and Community Education
 8. **Kent State University:** Educational Administration; Educational Foundations
 9. **Georgia State University:** Educational Policy Studies
 10. **University of North Carolina-Chapel Hill:** School Administration; Educational Leadership
 11. **George Mason University:** Educational Leadership
13. **Timetable:** Outline of chapters delivered: June 10, 2002.
Final chapters delivered: September 30, 2002.
14. **Background Information: Vita for Editors:** Joanne Kilgour Dowdy & Joan T. Wynne

MORE THAN JUST WORDS: A MODEL FOR DESIGNING EFFECTIVE HEALTH MESSAGES FOR THOSE AT-RISK FOR HIV

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Abstract

Functional health literacy is of extreme importance. It is essential that adults are able to comprehend the numerous types of written medical documents provided to them. This article describes a model for designing and creating effective health literacy messages, in particular HIV messages. This model can be used by reading specialists to help evaluate and to create additional types of adult literacy messages. The article begins with a short description of our theoretical framework followed by brief review of the literature related to health literacy in general and HIV messages in particular. Next, the article details the process used to develop an appropriate low literacy HIV brochure by first examining current HIV messages followed by the creation of a new brochure.

How many letters, forms, flyers and other texts go home with students for parents to read and sometimes to sign and return? How often do teachers and school administrators wonder if parents even received or better yet, understood these texts? Parents are bombarded with numerous texts in their daily lives, sometimes containing vital information related to health and well being, particularly when parents and other adults attend doctors' offices and

hospitals. Racks of medical pamphlets often line the shelves of waiting rooms with topics ranging from diabetes to Human Immunodeficiency Virus (HIV). However, for many adults comprehending what they read is impossible because almost half of the United States population struggles with literacy skills, numeracy skills, or both (Kirsch, Jungeblut, Jenkins, & Kolstad, 1993).

The implications of these struggles are numerous and, in the case of health, dangerous. Imagine what it might be like for an adult to reach out for vital, maybe life-saving, information and not be able to grasp the meaning of the text or even know how to ask for help? Even though language and literacy specialists do not generally write health texts, they still meet adults, often times parents, who have difficulty understanding general healthcare information. At the minimum, the complexity of healthcare requires adults to be able to read, write, and speak with minimal proficiency—to be functionally literate. It is imperative that adults are able to read and comprehend the myriad written documents provided to them including prescription dosage instructions, warnings and contraindications, informed consents, discharge instructions, and other health education materials not to mention insurance coverage details or Medicare or Medicaid applications.

Because of the complex nature of essential health care messages, we decided to investigate health literacy in more detail. Our work is guided by two theoretical frameworks: The self-efficacy theory (Bandura, 1986) and the locus of control theory (Rotter, 1989). The self-efficacy theory, an essential element of Bandura's Social Learning Theory, is related to a person's self-confidence to perform certain behaviors. Self-efficacy beliefs provide the foundation for human motivation, well-being, and personal accomplishment. This occurs because unless people believe that their actions can produce the outcomes they desire, they have little incentive to act or to persevere in the face of difficulties. Much empirical evidence now supports Bandura's contention that self-efficacy beliefs touch virtually every aspect of people's lives—whether they think productively, pessimistically or optimistically; how well they motivate themselves and persevere in the face of adversities; their vulnerability to stress and depression, and the life choices they make. Self-efficacy is also a critical determinant of self-regulation. We believe that low literacy skills have a demoralizing effect on many people, particularly parents whose children sometimes surpass them in their literacy abilities. In these cases, there may be a lack of self-confidence and as a result no knowledge of how to change behavior.

Another social learning theorist, Julian B. Rotter (1989), described various essential components of behavior including the concept of locus of control. He suggested two types of control: inner locus of control and external locus of control and that these categories were on a continuum ranging from extreme internal control to extreme external control. Persons with strong

internal locus of control take responsibility for their actions and believe that success is attributed to their actions. On the other hand, persons with external locus of control believe that they are controlled by some outside forces. They feel little control of their destinies (Pajares, 2002). In particular, many adults feel a lack of control in different aspects in their lives, including the belief that their health is at the whim of fate or some other external force as this belief may have been reinforced through earlier health-related experiences. On the other hand, adults who are directed by their own inner control are more likely to take charge of their health behaviors (Doak, Doak & Root, 1996). These two theoretical lenses have guided our words and actions throughout this project and related research.

In our search of the literature, we discovered that many adults in the United States have severely limited access to health-related information because their low level functional health literacy makes these materials incomprehensible. In particular, the 1992 National Adult Literacy Survey (NALS) in the United States revealed that almost half of the adult population had either literacy deficiencies, numeracy deficiencies, or both. Consequently, the focus of this article is an examination of the accessibility of many standard healthcare materials, specifically those related to HIV in terms of their readability and design elements. Although much has been written about health literacy in general and the relationship between health literacy and specific diseases such as diabetes, asthma and hypertension, very little has been written about the relationship between functional health literacy and persons at risk for HIV infection. Therefore, an appropriate place to begin this discussion is with a brief overview of health literacy issues in general, followed by discourse on health literacy as it relates to HIV. After this review, this article will detail our work developing a more readable, accessible, and user-friendly brochure related to HIV in the hopes that it can provide a model for language and literacy specialists to become more involved in the creation of low literacy materials on a variety of topics, whether related to health, economics, parenting or other essential subjects. Educators, including college professors, school teachers and staff, should not only be aware of the implications of adult low literacy skills, but should also be willing to design appropriate level reading materials and to redesign those that are not.

Health Literacy: Review of Literature

The National Adult Literacy Survey found that about half of the United States adult population has limited or extremely limited reading and quantitative skills (Kirsch et al., 1993). Of these adults, 21 to 23% had significant difficulty using reading, writing, and computational skills for everyday tasks. The discourse concerning the alarmingly high number of adults who have

limited reading skills was further informed by the work of Parker, Baker, Williams and Nurss (1995) who note that "One fourth of those in the lowest reading level are immigrants whose native language is not English" (p. 1). This literacy problem seems even more precarious when dealing with health materials since this information is vital to physical and mental well being. Alarmingly, study participants who reported having a health condition which limited their lifestyles were far more likely to fall within the two lowest levels of literacy.

When a person's literacy is below the functional level, he or she runs the risk of misreading and misunderstanding prescriptions, misusing medical devices or equipment, and not adhering to treatment regimens (Chew, Bradley, & Boyko, 2004). Functional literacy is defined as "having sufficient basic skills in reading and writing to be able to function effectively in every day situations." In particular, literacy specific to healthcare is often called health literacy and is defined as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (Office of Disease Prevention and Health Promotion U.S. Department of Health and Human Services. Healthy People 2010, Objectives 11-2 and 11-6).

Research in health literacy has indicated that self-reported health was strongly related to health literacy in that those patients who reported poor health were more likely to have had inadequate literacy. Further, patients with low literacy were less likely to know general information about their condition as well as important lifestyle and dietary factors that could influence their prognosis. They were less likely to understand the purpose of needed tests and procedures (Lindau, et al., 2002), and were less likely to report accurate information about their medical history (Gazmararian, Williams, & Baker, 2002). Clearly research has shown that those with low health literacy face challenges above and beyond just their medical condition and healthcare regime.

Health Literacy and HIV

Research has demonstrated that poor health literacy impedes one's ability to fully understand personal health issues, illnesses, and treatments. Although much has been written about health literacy in general and the relationship between health literacy and diseases such as diabetes, asthma and hypertension, much less has been written about the relationship between health literacy and HIV infection. In a survey study of adults living with HIV/AIDS, Kalichman & Rompa (2000) found that 18 percent scored below the cutoff for marginal functional health literacy on the Test of Functional Health Literacy Assessment (TOHFLA). Additionally, those participants with low

functional health literacy were significantly more likely to receive lab test results indicating a higher concentration of HIV in their blood (viral load) and more compromised immune functioning as measured by helper T cells (CD4 count) and were less likely to understand the meaning of these test results. Participants with lower health literacy were also more likely to have misperceptions about the preventive effects of treatment on HIV transmission, increasing their potential risk for communicating treatment-resistant strains of HIV. These findings indicated that individuals with lower functional health literacy may have suffered higher rates of HIV infection than those with higher literacy skills, and that after becoming infected, they needed a more tailored approach to HIV patient education and treatment programming.

Numerous studies have demonstrated that the population characteristics of those with low literacy skills overlap with those identified as being at highest risk for health problems, including HIV/AIDS. Although advances have been made to improve health communication for individuals with low literacy, important information contained in health education materials remains largely inaccessible to a significant proportion of the U.S. population. Looking specifically at the research of health literacy with HIV positive patients, the findings are alarming. Patients with low literacy were four times more likely to be non-adherent to their treatments than those with high literacy. Additionally, low literacy HIV positive patients were more likely to be confused, experience side effects, feel depressed, or want to cleanse their body. Further, patients with low literacy were three times more likely to provide discrepant health status reports of their current immune functioning indicating their lack of comprehension of lab test results (viral load and CD4 counts) given to them by health care providers. These results show the importance of providing broadly accessible health information as well as support one purpose of this work which is to provide a message that effectively communicates the process and benefits of HIV testing and treatment using language each patient finds clear and meaningful.

Determining Health Literacy Levels

The TOFHLA was administered in all of the aforementioned health literacy studies. This instrument utilized written materials commonly found in hospital settings to determine low, marginal, or high levels of functional health literacy. Results were calculated using a 50-item multiple choice modified Cloze procedure and a 17-item numeracy test. A participant was instructed to read passages in which every fifth to seventh word had been deleted. The participant was then asked to choose one of four words that would correctly complete each phrase of the passage. Additionally, the TOFHLA had participants respond to prompts, such as pill bottle instructions and appointment

slips, thus measuring patients' ability to use basic numerical information. The resulting literacy assessment has been noted as being highly correlated to other measurements including: the Wide Range Achievement Test (WRAT) reading subtest, and the Rapid Estimate of Adult Literacy in Medicine (REALM). Researchers vary in their description of the score percentage that indicates low literacy. For instance, Kalichman and Rompa (2000) classified low literacy with scores falling below 80%. However, Kalichman, Rompa, and Cage (2000) reported 85% as the determining score, while Baker, Parker, Williams, Clark, and Nurss (1997) used 75% as the cutoff score. Further, the three passages used in the modified Cloze section have tremendous variance in their level of readability at 4.3, 10.4, and 19.5 respectively. Therefore, it might be difficult using only the TOFHLA to understand fully how *low* the label of low literacy really is. Users must set their own low literacy level scores.

Interpreting the meaning of low literacy is one issue within the literature. Another issue deals with the health materials themselves. While studies evaluating the readability of health education materials in areas such as smoking and diabetes have been conducted (Williams et al., 1998b, Williams, Baker, Honig, Lee, & Nowlan, 1998), none of the aforementioned studies in HIV health literacy tackle the readability issue. Consequently, researchers are calling for more examinations and interventions in health literacy. Therefore, we set out to understand the readability of HIV health messages, particularly those that advocate testing behaviors. The following sections detail what we found.

Procedures for Analyzing HIV Health Messages

With so many adults dealing with their low literacy abilities, it is imperative that language and literacy specialists become involved in the creation of health messages. We present our procedures as a model by which other literacy experts may analyze various health messages and/or create new messages for adult readers for any number of topics. To begin our analysis of HIV health messages, we first collected 16 sample brochures dealing with HIV. These brochures were found in doctors' offices, hospital waiting rooms, and various social services agencies. Our first step was to create a catalog of intervention materials that existed in these settings at this time related to HIV, in particular, HIV testing (see Table 1). At the same time, we began to read widely for ways to evaluate health education materials. In our research, we discovered a number of valuable websites including Harvard University's School of Public Health's National Center for the Study of Adult Learning and Literacy (<http://www.hsph.harvard.edu/healthliteracy/links.html>). These websites led to other valuable sources on how to evaluate existing health literacy materials such as *Beyond the Brochure: Alternative Approaches to*

Table 1. Brochures Collected and Analyzed

TITLE	DATE	PUBLISHER/AUTHOR
1. <i>It's Negative So Now What</i>	None	American Social Health Association
2. <i>What Everyone Should Know About HIV Testing</i>	1996	Channing Bete Co.
3. <i>Learn About HIV Testing</i>	1998	Channing Bete Co.
4. <i>HIV & AIDS: Are You At Risk?</i>	2000	CDC
5. <i>Should You Be Tested For HIV</i>	1997	Georgia Dept. of Human Resources
6. <i>Women, HIV, & AIDS—Facts For Life</i>	1996	Channing Bete Co.
7. <i>Teen Talk About Taking The HIV Test</i>	1996	Channing Bete Co.
8. <i>So, You're HIV-Negative</i>	1994	Channing Bete Co.
9. <i>It's Better To Know- Counseling & Testing in African American Communities</i>	2001	Our Common Welfare, Inc.
10. <i>HIV & Sex —Unsafe, Safer, Safest</i>	1998	Journeyworks Publishing, Santa Cruz AIDS Project
11. <i>HIV Is One Thing You Don't Have To Pass On To Your Baby</i>	None	Georgia Dept. of Human Resources
13. <i>What Women Ask</i>	None	Georgia Dept. of Human Resources
14. <i>The Condom Quiz—Know the Facts Be Smart About Sex</i>	2000	Eva Bernstein-Journeyworks Publishing
15. <i>Ever Wish You Could. . . .</i>	2002	New York Department of Health
16. <i>Protect Yourself & Your Baby From HIV and AIDS</i>	2001	New York Department of Health
17. <i>HIV and AIDS Facts</i>	2003	New York Department of Health

Note: Number 12, the low literacy message, is not listed here.

Effective Health Communications (Centers for Disease Control, 1994) and *Teaching Patients with Low Literacy Skills, 2nd edition* (Doak, Doak & Root 1996). Consequently, we learned the importance of both language and design in creating brochures that are easily accessible to a low literacy population (see Table 2). These principles can be applied to the creation of any

Table 2. Creating Low Literacy Brochures

LANGUAGE	DESIGN	OTHER
<ul style="list-style-type: none"> • Modify the level of language of print material to make it more accessible to readers; • When possible, use prospective readers' first language; • Adjust vocabulary difficulty and complexity of sentence structure to be more accessible to all readers; • Group like ideas and highlight key points. 	<ul style="list-style-type: none"> • Balance white space and print; • Use bolded headings and sections, and a large easily read font; • Use appropriate illustrations aligned with text. 	<ul style="list-style-type: none"> • Utilize culturally relevant materials.

texts for adults with low literacy abilities, but for the purpose of this project, we focused on health messages.

Health literacy materials should be written in a clear, simple, and logical style. Like other types of good writing, health education materials need to have a definite organizational format with a simple contextual or background type of introduction, a body composed of main points with supporting evidence and details, and a concluding summary. Sentences should be written in the active voice using simple vocabulary and understandable examples and sources. Layout is equally important. Materials should use an easily read print type such as Serif in 12 point size, 1.2-1.5 spacing, with both upper and lower case letters. Words should be printed on a light background so as to include ample white space for easy reading. Pages should be attractive without a mass of print to stymie the reader. If charts or graphics are utilized, they should be clearly labeled and placed close to the text they are explaining. Finally, it is important that the text does not try to cover too many ideas at one time. In fact, it is better to have only one or two main messages per text.

We believe that many of the standard brochures we collected failed to consider the literacy level of the target population, many of whom function at a low level of literacy. As a result, some of the brochures used medical and technical terms with which the population might not be familiar and provided too much information in one brochure. For example, we think that the Centers for Disease Control and Prevention (CDC) brochure (2000) provided a too detailed definition about HIV using technical terms: "HIV—the human immunodeficiency virus—is a virus that kills your body's 'CD4 cells'. CD4 cells, also called T-helper cells, help your body fight off infection and disease" (pg. 1). Likewise, we thought that the Georgia Department of Human Resources (1997) also used a difficult medical term while stating, "Transfusions of HIV-contaminated blood has caused a small number of HIV infections" (pg. 5). In addition, Channing Bete Company (1996) listed the names of diseases, "Pneumocystis carinii pneumonia (PCP), a lung infection, certain cancers, such as Kaposi's sarcoma, viral infections, such as cytomegalovirus (CMV)" (pg. 5) to illustrate how AIDS is diagnosed. (More examples are outlined in Table 3.) Additionally, some brochure pages were viewed as too heavily decorated without providing enough white space or meaningful, context-based visual aids (Georgia Department of Human Resources, 1997; Channing Bete Company, 1996) or did not appear to represent culturally appropriate images, sometimes including cartoon-like images (Channing Bete Company, 1994, 1996, 1998).

Table 3. Standard Brochure Language Difficulty Examples

PUBLISHER/AUTHOR (DATE)	TITLE	INAPPROPRIATE/OR DIFFICULT LANGUAGE
American Social Health Association (Not provided)	<i>It's Negative So Now What</i>	<p>"The test looks for the cells (antibodies) in the blood that fight HIV."</p> <p>"To prevent HIV, don't let another person's semen (cum), blood, or vaginal wetness get inside your body."</p>
Centers for Disease Control and Prevention (CDC) (2000)	<i>HIV & AIDS: Are You At Risk?</i>	<p>"If you are allergic to latex, there is a polyurethane, a type of plastic, condom that you can try"</p> <p>"Get immunizations, shots, to prevent infections such as pneumonia and flu"</p> <p>"HIV—the human immunodeficiency virus—is a virus that kills you body's 'CD4 cells.' CD4 cells, also called T-helper cells, help your body fight off infection and disease."</p> <p>"You are more likely to test positive if you have received a blood transfusion or a blood clotting factor between 1978 and 1985."</p>
Georgia Department of Human Resources (1997)	<i>Should You Be Tested For HIV?</i>	"Transfusions of HIV-contaminated blood have caused a small number of HIV infections."
Channing Bete Co. (1994)	<i>So, you're HIV negative</i>	<p>"The tests look for HIV antibodies or HIV antigens"</p> <p>"If you are allergic to latex, consider using a polyurethane male or female condom."</p>
Channing Bete Co. (1996)	<i>What Everyone Should Know About HIV Testing</i>	<p>"AIDS is diagnosed when certain disease-fighting cells in the body reach low levels and/or the person with HIV gets certain illnesses. These illnesses include:</p> <ul style="list-style-type: none"> • Pneumocystis carinii pneumonia (PCP), a lung infection • Certain cancers, such as Kaposi's sarcoma • Viral infections, such as cytomegalovirus (CMV)"

To further substantiate our findings, we conducted a readability review for each brochure using Micro Power & Light Company's computer program called *Readability Calculations Set 1* (2000). This computerized program's readability calculations include the most widely used readability formulas in literacy research. For the purpose of this discussion, we focused on four readability formulas: Flesch Reading Ease Formula (Flesch, 1948), FOG (Gunning, 1952), SMOG (McLaughlin, 1969), and the Dale-Chall formula (1948). We used a variety of complementary measures since each measured an important aspect of literacy related to our target population, low literate adults.

For example, we chose the Flesch Reading Ease Formula because it was appropriate for measuring adult literacy and because it provided a numerical readability score. The FOG was chosen because of its ability to indicate scores appropriate for technical publications like health literacy materials. The SMOG determines the grade level that would most likely achieve 100% comprehension of the sample and is based upon the total number of words

Table 4. Readability Formulas

READABILITY MEASURES	SCORING	LOW LITERACY BROCHURE SCORE	BROCHURE SAMPLE AVERAGE SCORE	SAMPLE RANGE
Flesch Reading Ease Formula Focuses on number of words, syllables and sentences, reporting a numerical readability score between 0 and 100, with more difficult material rating a lower score.	<30=Extremely difficult 30-70=Moderately difficult >70=Easy	98.6	75.6	56.7-96.7
FOG Utilizes the word total, the number of words of three or more syllables, and the number of sentences for combined readability calculation. The results of this formula do not indicate a grade level; publications identified as a specific type should score within a specific area.	<14 is appropriate for a technical publication <12 general business publication <8 general clerical publications	3.1	7.8	4.5-11.7
SMOG Determines the grade level that would most likely achieve 100% comprehension of the sample and makes its calculations based upon the total number of words in the sample containing three or more syllables.	Grade level score 1-12	5.0	8.5	5.7-11.5
Dale-Chall Utilizes an established word list as well as the total number of words and sentences in the sample to calculate a readability grade level.	Grade level score 1-12	5.2	7.5	6.1-8.6
Other readability measures	Number of total words	120	990	278-1883
	Number of sentences	3	88	20-193
	Number of polysyllabic words per 100 words	2.5	8.9	2.3-17.2
	Number of difficult words	10	206	54-493

in the sample containing three or more syllables. Finally, the Dale-Chall formula is generally used to evaluate material from upper elementary to secondary grade level. It was considered relevant based on the preliminary evaluation of the standard brochures available. We believed that these four instruments would complement each other, providing a comprehensive evaluation of the readability of the health literacy materials.

Steps for Analyzing Readability Levels

In order to use the computerized readability program, we had to make sure that each brochure was typed in a word processor as running prose, excluding scientific, technical or mathematical notations. The text of each booklet was then edited according to program specifications and saved as a numbered sample file in a text only format. Editing included the removal of numbered or bulleted lists, using lower case letters for words written in all capital letters and making sure that all punctuation marks that did not indicate the end of a sentence were removed. The entire text from each of the HIV testing brochures were then run through the program. In an effort to assure reproducibility in editing and independently verify formula calculations, a random brochure was selected, inputted into the computer, edited and run through the program a second time. Because the program would not retain the results of the previous sample, the results were printed when each sample was run.

Results of Brochure Evaluations

Table 5 presents the findings of the readabilities, calculated based on the four primary formulas, for each of the 16 standard brochures. In addition, the table highlights key elements of analysis of the language used in each brochure, including the number of words, number of polysyllabic words per 100 words, and number of difficult words.

Upon examining the brochures, we discovered several reasons why adults with low health literacy would have difficulty reading them. Each of the standard brochures presented the reader with multiple health messages, and each consisted of an average of 88 sentences and over 990 words. The average number of polysyllabic words per 100 words was about 9, and the average number of words in each brochure classified as difficult was more than 206. The Flesch Reading Ease Scale (1948) ranged from a most difficult of 56.7 to least difficult of 96.71. The average Flesch score was 75.64, with 37.5% scoring 70 or below. The grade level that would most likely achieve 100% comprehension according to the SMOG formula ranged from a high of 11.5 to a low of 5.7. The 16 standard brochures produced an average SMOG grade of 8.49; however, 11 of 16 were assigned a grade of 8 or higher, and 3 were

Table 5. Readability Results

Brochures	1	2	3	4	5	6	7	8	9	10	11	12*	13	14	15	16	17
FUSCH	96.71	70.6	70.72	70.66	84.19	72.15	87.2	72.75	56.9	71.43	76.89	98.61	63.81	77.69	66.68	81.33	90.71
FOG	4.5	7.6	7.9	9.7	6.1	7.9	5.3	8.3	11.7	8.2	7.4	3.1	10.5	6.6	10.6	7.8	4.9
SMOG	5.7	8.7	8.8	9.8	7.2	8.7	6.7	9.1	11.5	8.9	8	5	10.8	7.8	10.4	8	5.8
DALE-CHALL	6.1	8.3	8.3	7.6	6.9	7.7	6.1	7.6	8.1	8.6	6.4	5.2	8.1	7.5	8.3	7.1	6.6
NUMBER OF WORDS POLYSYLABIC WORDS PER 100 WORDS	448	1883	866	1264	1088	1782	1678	1530	278	499	394	120	985	514	1107	1145	388
NUMBER OF DIFFICULT WORDS PER 100 WORDS	2.68	10.84	9.82	9.74	6.35	9.88	5.31	10.92	17.27	9.42	6.86	2.51	12.29	8.57	14.1	5.77	2.32
NUMBER OF DIFFICULT WORDS	57	493	227	255	192	395	215	330	67	137	54	10	229	111	279	198	59

Note: Low Literacy Brochure

assigned a grade level above 10. The FOG results ranged from a low of 4.5 to a high of 11.7 and had an average of 7.81 with 37.5% of the standard brochures scoring higher than what would be considered appropriate for general clerical publications. The average Dale-Chall grade level for all 16 standard brochures was calculated at 7.46, with the grade estimates ranging from 6.1 to 8.6. These high levels would make these materials difficult to read for those with low literacy skills.

A Low Literacy Brochure

Based on our analysis of the standard brochures, we developed a low-literacy brochure (see Appendix). We designed the brochure to be culturally responsive to the targeted audience, including artwork and photography reflective of the urban physical setting and predominantly African-American inner-city community in which we worked. The brochure was designed to send one simple yet action-based message: Get tested today! This message is repeated three times on our newly-designed brochure: on the cover, in the middle of the brochure, and at the end. Technical language was avoided. Instead, peer language was used. For example, when talking about the Rapid HIV test, the brochure reads: "It only takes a finger prick with a small needle." Further, the brochure was written to engage the reader. For example, we start by asking the reader questions (again using peer language): "Have you had sex without a condom? Have you shared your works?" The layout of the design was constructed so that images supported meaning making (e.g. a clock by a statement about time) and lines direct the readers' attention to the next piece of text (see Appendix). Finally, culturally relevant images of urban settings and people of various demographics were used to create inclusive, representative feelings for potential readers.

The readability data for our brochure confirmed its accessibility to readers with below average literacy skills. The total number of words used was 120 in 23 sentences, compared to more than 990 words in 88 sentences for the standard brochures. The number of polysyllabic words per 100 words in our brochure was 2.51 compared to 8.88 for the standard brochures and the number of difficult words was 10 compared to 206. Keeping in mind the higher the Flesch Reading Ease the easier the sample is to read, our newly designed brochure scored higher than any of the standard brochures, at 98.61 compared to an average of 75.64 for the standard group. The FOG score was 3.1 and the grade level, which the SMOG formula determined would achieve 100% comprehension was 5 for our brochure. These also compared favorably to the average FOG (7.81) and SMOG (8.49) for the 16 standard brochures. Finally, the Dale-Chall grade level for the new low literacy brochure was 5.2 compared to an average of 7.46 for the standard brochures.

Discussion and Implications

Functional literacy is essential for the physical and emotional well being of everyone, regardless of age or situation. Our research has uncovered a critical need for literacy experts to become involved in health literacy by assisting in the creation of messages used to educate patients about a variety of health issues. Literacy experts offer a unique perspective on creating health messages. They can evaluate the message to best meet the needs of the reader. However, becoming involved with health literacy does not necessarily mean working with medical organizations. Often, health information is disseminated in our schools. Health and reading teachers must be included, in a broader cooperative partnership with administration at the institutional level, in the evaluation of informational materials given to students or sent home to parents. Teacher educators can help by drawing attention to this important issue, encouraging teachers to utilize real, meaningful examples of health materials in their classrooms and by assisting them in developing the skills needed to serve as material evaluators in their schools. As previously mentioned, the 1992 National Adult Literacy Survey revealed that almost half of the U.S. adult population had either literacy deficiencies, numeracy deficiencies or both. This means that many of the parents of school-age children may not be functionally literate. When messages go home to parents, no matter the subject area, they should be accessible to those who struggle with functional literacy. That is, messages should be written in a clear, simple, and logical style, highlighting only one or two main points. When possible, technical terms should be avoided. Remember, too, that layout is equally important. Ample white space, culturally responsive graphics, and large font sizes assist the reading of the message. This becomes even more critical when the take-home message concerns health issues. These simple steps may mean all the difference for parents who have low functional health literacy.

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Appendix

Have you had sex without a condom?

Have you shared your works?

Did you answer yes to one of these questions?

Then, Get Tested for HIV Today.

POLICE
1ST WEST
1ST SOUTH

Why get tested now?

This test is EASY.
It only takes a finger prick with a small needle.

It is a good test.
You can trust the results.

There is a NEW test.
It is called the Rapid HIV test.

The test is QUICK.
It only takes 20 minutes.

What if the test says
I have **HIV**?



Why wait?
**Be sure. Be safe.
Get Tested for **HIV** Today.**

There is new
medicine for **HIV**.

This medicine will
help you live
a **LONGER,
HEALTHIER** life.



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Partnership based on the 1996 National AIDS Institute
Phone: 1-800-CDC-3427 (1-800-352-4949)
EPI: 1-800-232-4649
In English, or Spanish
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USING A CULTURALLY-RESPONSIVE APPROACH TO MULTICULTURAL LITERATURE: PREPARING PRE-SERVICE TEACHERS TO WORK WITH ALL STUDENTS

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Abstract

To teach diverse students most effectively, future teachers need to understand and capitalize upon the cultural knowledge students bring with them to school. Pre-service teachers can learn to strengthen their connections with diverse students and strengthen student connectedness with schools by implementing culturally-responsive education. The authors define culturally-responsive education and present a rationale for using this approach to help diverse students succeed in school. They propose strategies designed to prepare teachers to develop the literacy of their students from different cultures most effectively and share examples of multicultural literature appropriate for culturally-responsive teaching.

One of our friends has taught in a Philadelphia elementary school for many years. The population of this school has evolved from one where students are predominantly from one ethnic and religious group to one with significant ethnic, racial, and linguistic diversity. Presently, students in the school represent many ethnic and religious groups and are from families who speak 48 different languages. Teachers all over the United States face more

diverse populations than in the past (Educational Research Service, 1995). According to a report completed by the National Center for Educational Statistics (2003), across the United States, 39 percent of public school students are members of minority groups. In large or midsize city schools, 63 percent of public school students are members of minority groups. "Student diversity factors include culture, religion, primary language, race, socioeconomic level, ethnicity, family composition, gender and previous experience" (Harriott & Martin, 2004, p.48).

In addition to the increasing diversity of students there is a growing body of research reminding us of the importance of addressing the needs of all students and their families (Bazron, Osher, & Fleischman, 2005). Researchers in the field of cultural dissonance have found much to examine through the 20th and into the 21st centuries. While the populations studied by these researchers have been ethnically diverse (ranging from African Americans in Appalachian Mountains (Heath, 1983) to the Warm Springs Indian Reservation (Philips, 1983) to lower-class classrooms in London, England (Bernstein, 2000), the economic situations of the students studied and the outcomes of the research findings have been alarmingly similar. Students who come to school from minority and poor backgrounds are unable to match the expectations of the classroom. These seminal studies conclude that educational systems perpetuate societal inequity based in part on the language used by the students. Researchers contend that educational systems can, and often do, perpetuate the status quo by reinforcing class hierarchies. (Gee, 1988; Horton & Freire, 1990; Lankshear, 1997). Without addressing the individual needs of students, this cycle will continue.

Theoretical Framework

While the student body in our public schools is becoming increasingly diverse, research also tells us that teachers entering the field are becoming increasingly homogenous. Ball (2000), Delpit (1995), and Gomez (1993) are among those prominent researchers examining the question of "who will be the teachers of the future and whom will they teach?" (Gomez, 1993, p. 460). These researchers have identified a serious mismatch between the race, class, and language backgrounds of students entering teacher education programs and the students they are preparing to teach. Sleeter (2001) observed that "the cultural gap between children in schools and teachers is large and growing" (p.94). Gomez cites statistics describing a school-age population made up of 40% children of color guided by a teacher population that was 90% white. Similarly, Delpit contends that the "number of teachers from nonwhite groups threatens to fall below 10 percent . . . additional data suggest a continued downward spiral" (p. 105).

Gomez (1993) continues to explain that race is only one factor in the student-teacher mismatch dichotomy she describes. She contends that socio-economic differentials between students and teachers is also present with a majority of teachers coming from middle class suburban and rural backgrounds while more and more of the students they teach come from poor and urban backgrounds. Finally she writes of the language differential between teachers and students asserting that most of the nation's teachers are monolingual while their students are increasingly limited-English proficient. Gomez develops a portrait of the typical pre-service teacher candidate as follows:

She is White; from a suburban or rural hometown; monolingual in English; and selected her college for its proximity to home, its affordability and its accessibility. She has traveled little beyond her college's 100-mile or less radius from her home and prefers to teach in a community similar to the one in which she grew up. She hopes to teach middle income, average (not handicapped or gifted) children in traditional classroom settings (p. 461).

An examination of pre-service teachers' knowledge and beliefs around the ideas of culture, language, and literacy are critical to use as a starting point for instruction of pre-service teachers. While linguistic training and courses in discourse analysis might be easy to include in existing teacher training curriculum, what is equally important is addressing the sociocultural-based conceptions of culture pre-service teachers bring with them to their training experiences as part of their induction into sociolinguistic frameworks. Ball (2000) contends that teacher dispositions towards minority and poor students should be the primary starting point for teacher educators in assisting pre-service and practicing teachers to move beyond internalization of information about linguistic diversity into considering pedagogical implications of language diversity in the classroom and in the lives of students. From this base, Ball advocates that connections to literature, research, and theory can be built to scaffold pre-service and practicing teachers in working with diverse populations of students. In other words, teacher educators must start with pre-service teachers' pre-existing knowledge, their existing beliefs, and their emotional responses to working with minority and poor students.

Harriot and Martin (2004) recommend that teachers develop a supportive classroom community where students "accept each other's differences and support each other's learning" (p. 48). Perhaps this is easier said than done. Even those programs that do expose students to the research into home-school linguistic mismatch have been found to have negligible impact on teachers once they enter the classroom contexts (Ball, 2000; Ball & Muhammad, 2003; Heath, 2000; Levine-Rasky, 1998). Research indicates that cultural and linguistic diversity is viewed by pre-service teachers as some-

thing that exists “outside” of themselves as individuals. In fact, students seem to be irritated by coursework in this area and rate their experiences with this content as “overdone, irrelevant, partisan, or even threatening” (Levine-Rasky, 1998, p. 2, citing Grant & Koskela, 1986, and Menter, 1989). Furthermore, students are unwilling or unable to discuss or to see themselves as “classed and raced social actors moving within social worlds characterized by privilege and inequities” (Levine-Rasky, p. 13). Sleeter (2001), after reviewing a number of studies, wrote that most white preservice teachers bring “little awareness or understanding of discrimination, especially racism” (p.95).

Marilyn Cochran-Smith (2000) wrote movingly about the difficulty in confronting issues of race and racism in the preparation of preservice teachers. Even after embedding these topics in her courses, she was confronted by students who felt the courses fell short of preparing education majors to teach culturally diverse students. Initially, she was taken aback by these comments but after thinking about them, she concluded that her preservice teachers need much more than distanced-academic discourse to prepare them adequately to confront issues of race and racism. What is needed as Rogers, Marshall and Tyson (2006) recently argued, is an “opportunity for students to challenge assumptions, broaden their belief systems, and develop more complex understanding of literacy, diversity, and schooling” (p.221).

In fitting with the research, the majority of the education students who attend our university are from middle-class, European-American backgrounds. Our students are required to student teach at least one semester in diverse, urban public schools. Many teach in these schools when they graduate. Despite these experiences, our students still are caught in the hallways making remarks about “those” students with whom they work, and we find this deeply disturbing. Our challenge is to prepare them to teach students who are culturally different from them. In an effort to examine and begin with instruction based in the beliefs and affect of our homogeneous student toward a diverse student population, the goals of this article are to: (a) explain what future teachers need to know to be able to teach multicultural students effectively, (b) present a rationale for using a culturally-responsive approach to allow diverse students to connect with one another, and (c) describe strategies that can allow pre-service teachers to more effectively teach literacy to diverse students using multicultural literature.

How Pre-Service Teachers can Learn to Reach Minority Students

Teachers can begin by recognizing that children bring cultural knowledge with them to school (Irvine, 1990). Teachers who understand culture, who are familiar with the functions of culture, and who are aware of the

dimensions of culture are less likely to experience cultural conflicts with their students (Ford & Moore, 2005). Teachers can strengthen their connections with diverse students and strengthen student connectedness with schools by embracing culturally-responsive education. Gay (2000) defines this approach as “using the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning more relevant and effective for them” (p. 121). Culturally-responsive instruction can strengthen student connectedness with schools, reduce behavior problems, and enhance learning (Kalyanpur, 2003; Bazron, Osher, & Fleischman, 2005). Culturally-responsive instruction is the kind of teaching that recognizes and capitalizes upon differences in culture that exist in today’s classrooms (Au, 1993; Cochran-Smith, 2000). It involves instructional practices that incorporate students’ cultural values and norms in order to promote student engagement in learning (Hollins, 1996; Jones, Pang, & Rodriguez, 2001; Rodrigues, Jones, Pang, & Park, 2004). Culturally-responsive teachers are sensitive to the challenges that some of their students face and at the same time see the strengths that students from other cultures bring to the classroom (Nettles, 2006).

Culturally-responsive classrooms are warm, welcoming, and inclusive communities of diverse individuals (Brown & Howard, 2005). They provide frequent opportunities for students and teachers to interact with each other; “such interactions provide teachers with opportunities to gain more extensive knowledge of who their students are culturally and developmentally” (Rodrigues, Jones, Pang, & Park, 2004, p.48). Teachers really caring for students and recognizing their home culture and language can go a long way in helping students achieve success in school (Sanacore, 2004).

Rosen and Abt-Perkins (2000) believe there are four principles that provide the framework for teacher education programs that address the literacy needs of minority students. They believe teachers need to:

1. Engage in autobiographical reflection on the cultural influences of their own literacy development because the culture of minority students influences how they interpret and evaluate text.
2. Understand the sociocultural values embedded in and the potential effects of various literacy instruction practices on their students.
3. Help students discover and explore ethnic connections in their literacy activities because their culture is central to what they decide to read, write, and say.
4. Develop the understandings that lead to effective literacy teaching in multicultural, multiracial, multiethnic classrooms. Since teachers would find it very difficult, if not impossible, to learn

the languages, cultural backgrounds, and ethnic influences of all their students, the main focus of teacher education programs should be to assist future teachers in understanding the impact linguistic and cultural differences have on literacy learning, to help them become sensitive to these differences and to teach them strategies for meeting the needs of minority student populations and for building attitudes of openness, interest, and acceptance of diversity among the students in their classrooms.

What Pre-Service Teachers Need to Know to Teach Multicultural Students Effectively

To be able to teach multicultural students effectively pre-service teachers must learn: (a) to distinguish cultural differences and misbehavior, (b) to identify the mismatch between school and home literacy practices, (c) to identify when a disparity exists between the language students use at home and the language expectations of the school environment, and (d) how a transmission model of instruction can be problematic for minority students. A description of each of these four important concepts follows.

Distinguish Cultural Differences and Misbehavior

The literature informs us that teachers unfamiliar with students' diverse backgrounds sometimes misinterpret cultural difference as misbehavior (Ford & Moore, 2004; Osher, Carledge, Oswald, Artiles, & Coutinho, 2004). Several statistical studies have established that compared with their Caucasian peers, minority students are suspended from school more frequently and for longer durations (Skiba, Michael, Nardo, & Peterson, 2000), punished more severely (Office for Civil Rights, 1992) and disproportionately referred for restrictive special education services (Bazron, Osher, & Fleischman, 2005; Losen & Orfield, 2002).

Identify the Mismatch Between School and Home Literacy Practices

Research tells us that there are teachers who equate literate behavior (at least school-sanctioned literate behavior) with cognitive ability. They believe that students who are capable of producing school-sanctioned literate behavior are seen as "normal", and those students who are unable to meet the demands of school-based literate practice are seen as deficient not only in terms of their literacy performances, but also in terms of their cognitive abilities. On the other hand, many studies have shown that the inability of students to produce school-based literacy output is tied less to issues of cognition and more to the mismatch between school and home literacy practices (Arce, 2000; Delpit, 2003; Fecho, 2000; Gee, 2001; Heath, 2000; Li, 2001; Michaels, 1987; Moje, 2000; Morgan, 2002; Ogbu, 1999; Osborne, 1999; Pelz,

1982; Reagan, 1997; Richardson, 1994; Schafer, 1983; Smitherman & Cunningham, 1997; Vygotsky, 1986; Williams, 1981; Wolff-Michael & Hamera, 2000). As a result, children not able to produce accepted mainstream forms of literacy often become “invisible” in the classroom environment receiving only negative evaluations from teachers and peers thought of as more capable (Cazden, 2001; Gee, 1988; Heath, 1983; Michaels, 1984; Philips, 1983).

Identify When a Disparity Exist Between the Language Students Use at Home and the Language Expectations of the School Environment

Researchers in this field of cultural dissonance have found much to examine through the 20th and into the 21st centuries. While the populations studied by these researchers have been ethnically diverse (ranging from African Americans in Appalachian Mountains (Heath, 1983) to the Warm Springs Indian Reservation (Philips, 1983) to classrooms in London, England (Bernstein, 2000), the socioeconomic status of these students and the outcomes of the research findings have been alarmingly similar. Students whose “ways with words” did not match the academic language expectations struggled to succeed in classroom settings.

In her seminal and influential study in the field of cultural dissonance, *Ways with Words*, Heath (1983) concluded that the ways with words that many minority and economically disadvantaged students brought with them to school stood in sharp contrast to the ways print was used in academic settings and that this disparity led to students experiencing troubles and hardships in school settings.

Other studies in the field have come to similar conclusions. Bernstein (2000) was interested in how the language that an individual uses worked to symbolize social identity, and he felt that there was a direct correlation between social class and language usage—social class structures that the schools then reinforced and perpetuated. Bernstein concluded that the language used by lower class students acted as an impediment in their learning in formal educational settings.

Michaels (1984) work is also important to consider in examining students’ non-standard uses of language and the impact of this in classroom contexts. Based on her work, Michaels concluded that in learning contexts language is often the sole area used to evaluate learning and intelligence. Finally, Philips’s (1983) work also examined the experiences of children in academic settings based on oral interactions in the classroom. She concluded that school-based language and participation expectations placed the students in a subordinate position within the classroom due to their age and ethnic background. Philips identifies these oral interactional differences as a primary interference in the students’ learning processes.

Realize that a Transmission Model of Instruction Can Be Problematic for Minority Students

Traditional, transmission models seem to be particularly problematic for minority students. Disseminating information via transmission often leads to disengagement on the part of many of these students who become restive, potentially disruptive, or who engage in “mock” participation (Alvermann, et al., 1996; Hinchman, et al., 2003-04; Wade & Moje, 2000). The model of the silent classroom does not encourage authentic engagement on the part of these students. The transmission model of classroom instruction then creates classrooms organized around student reticence and docility where again these students are viewed as linguistically and cognitively deficient. Silent classrooms provide lower class and/or minority students with little opportunity to develop the academic language skills that middle class students learn at home (Adger, Christian, & Taylor, 1999). Logically enough, this lack of engagement often leads to behavioral issues that perpetuate stereotypes of ethnic minorities in academic settings.

Using a Culturally-Responsive Approach with Multicultural Literature

To create an environment that allows students to connect with one another and to apply the principles listed above, a number of educators propose the use of the culturally-responsive approaches to reading and discussing multicultural literatures. Foremost among this group is Dong (2005). She believes that a “culturally-responsive approach challenges the students’ preconceived notions about another culture by increasing their cross-cultural understanding” (p. 55). She believes this approach lends itself to engaging students in exploring the cultural context of the text, which in turn fosters cross-cultural understanding and opens the dialogue between students allowing them to explore racial and cultural differences. She writes, “. . . teachers must help students reflect on their cultural backgrounds and switch ideological stances to learn other perspectives and expand their cultural horizons” (p.56). Quoting researchers, including Encisco (1997), Hines (1997), and Rogers (1997), Dong argues that students are more willing to participate in multicultural literature reading and discussion if the teacher moves beyond a New Critical approach and uses reader-response and culturally-responsive approaches in their literary discussion. Dong recommends that teachers encourage their students to listen and actively observe racial and cultural differences of the characters in the books they are reading from a different perspective, such as the perspective of a person from that culture and notes, “This shift of stance helps students reflect on their initial responses and attitudes and explore the contextual meaning of these differences” (p.56).

As teachers of literacy methods courses, we want our students to overcome insecurities they feel, face uncomfortable issues surrounding race and class, become familiar with multicultural literature, truly welcome and better understand and communicate with all of their students. In order to do this, we believe our pre-service teachers must learn culturally-responsive teaching strategies to succeed as effective teachers of literacy to all children.

Strategies to Foster Culturally-Responsive Teaching

We would like to share four strategies with examples of multicultural literature appropriate for culturally-responsive teaching.

Strategy 1: Establishing Empathy through Performance and Discussion

Students will read *The Land* (2001) by Mildred Taylor and then work in pairs to select one excerpt from *The Land* that depicts a racial difference, write a dialogue on it, and then act out that dialogue. Dong (2004) advocates the use of dramatization to allow the students to “experience the literature in new perspectives by using multiple senses” (p.56). After students act out the scenes, a discussion will take place to serve as a springboard for developing empathy toward the book from different perspectives. As a culminating activity, students will be asked to respond to the experience in their journals.

Strategy 2: Learning about Cultures from Memoirs

As a class, students will read and discuss the memoir, *Hole in My Life* (2002) by Jack Gantos. We will explain that the book is a memoir and ask students to share the characteristics of a memoir. We will write their ideas on a chart. Using a cooperative learning strategy called “jigsaw,” students will read and discuss excerpts from memoirs including:

- *Bad Boy: a Memoir* (2001) by Walter Dean Myers
- *ME, ME, ME, ME, ME, Not a Novel* (1983) by M.E. Kerr
- *My Life in Dog Years* (1997) by Gary Paulsen
- *Invitations to the World* (2000) by Richard Peck

First, students will be assigned to a home group consisting of four students. Each student from a home group then moves into an expert group and together the group will read an excerpt from one of the memoirs (or the teacher could assign the reading ahead of time). The expert group discusses their assigned reading and then each student returns to his or her home group and shares what transpired in the expert group with everyone in that group. Based on what the student learned during their discussions, the whole-class revisits the chart (see Figure 1 for an example of how the chart might look) and adds to or takes away from the list of characteristics of a memoir.

Figure 1. Memoir Organizer

Memoirs				
	BAD BOY: A MEMOIR	ME ME ME ME ME NOT A NOVEL	MY LIFE IN DOG YEARS	INVITATIONS TO THE WORLD
A record of events based upon the writer's own observation.				
Memoir may cover only one event or aspect of the author's life.				
Memoir is a retrospective account of a memorable event.				
Memoir can be fictionalized.				

Source for characteristics of memoirs: *Writing Essentials* by Regie Routman, Heinemann, Portsmouth, NH, 2005.

For the next class, we will distribute a brief memoir called “The Pie” by Gary Soto (2002). After reading this new memoir, students meet in groups to find examples in this text of the qualities of a memoir they identified.

Finally, the students will receive an out-of-class assignment to write a brief memoir. This unit on memoirs will end with the students reading a memoir independently (King-Shaver, 2005).

Strategy 3: Reading from Different Perspective

Students use this strategy to respond to the book, *Nappy Hair* (Heron, 1998) and the controversy generated when a white teacher used this book in an urban, New York City school. Students will read *Nappy Hair* individually and write briefly about their perspective of the book (See Figure 2 for the organizer for this activity). Next, they will be assigned one of five roles: The white teacher who used *Nappy Hair* with her class, one of the students, one of the black parents of a student in the class, the author of the book,

and the principal of the teacher's school. Everyone assigned the same role will meet together as a home or base group. Each group will discuss concerns that someone with their assigned perspective might have about Nappy Hair. These will be summarized on a chart. Then members of the group will

Figure 2. Reading from Different Perspectives Organizer

Name _____ Date: _____

As a reader you bring a certain perspective to what you read based on who your background knowledge and your views. As you read you relate information and ideas to the perspective you bring with you.

You can broaden your understanding by rereading selections from entirely different perspectives. Use the organizer below to record your initial ideas and those from your assigned perspective.

After my initial reading of <i>Nappy Hair</i> , my perspective of the book:	
Our group's assigned role:	
Meet with your base group and complete the concerns and needs below.	
Concerns someone with our perspective might have about <i>Nappy Hair</i> :	Needs a person of our perspective would have that could be affected by <i>Nappy Hair</i> :
Meet with your second group and read the article assigned to the group. about the use of Nappy Hair read <i>Nappy Hair</i> and respond below.	
Meet again with your base group and listen as each person shares his/her assigned article.	
Write a position statement summarizing how someone from your assigned perspective might feel.	
Meet with the whole class and take turns sharing your perspectives. Discuss the perspectives.	
Complete this individual reflection. Insights I have gained through looking at the material from a variety of viewpoints.	

Adapted from Classroom Strategies for Interactive Learning, 2nd Ed. by Doug Buehl, Newark, Delaware: International Reading Association, 2001.

discuss and write on a chart the needs a person of their perspective would have related to the book.

Then students will regroup and meet with their second, assigned expert group. Each group will read and discuss the assigned article (See Clemetson, 1998; “Fallout From,” 1998). Students will return to their base groups and listen as each person shares the highlights of his/her assigned article. Then the group will write a position statement summarizing how someone from the group’s assigned perspective might feel.

The whole class will meet together, take turns sharing each group’s perspective, and discuss the various perspectives. Finally, students will be asked to complete an individual reflection with insights they gained by looking at *Nappy Hair* from a variety of viewpoints.

Strategy 4: Response to the Blues

Students will read and discuss *Blues Journey* (2003) by Walter Dean Myers and *Born Blue* (2001) by Han Nolan. After students read *Born Blue*, we will involve them in the strategy, “Save the Last Word for Me,” to discuss the book (See Figure 3 for an explanation of the strategy) and the strategy, Sequential

Figure 3. Steps in Save The Last Word for Me

Save The Last Word For Me	
Steps	What Partners Do
Step 1	Ask students to read <i>Born Blue</i> by Han Nolan.
Step 2	Students locate five statements in the assigned reading that they find interesting or would like to comment upon (statements with which they agree or disagree or that contradict something they thought they knew). Have students place a post it next to their five chosen statements.
Step 3	Distribute five index cards to each student, a card for each selected statement. <ul style="list-style-type: none"> • Have students write one statement on the front side of a card. • On the reverse side, have them write comments about the statements.
Step 4	Divide the class into small groups of four or five members. All students in each group share one of their five statements with other group members. The first student reads a statement to the group. However, the student is not allowed to make any comments on their statement until the other members of the group give their reactions or responses. In effect, the student gets “the last word” in the discussion of the statement. Students continue the process until everyone in the group has shared one statement and has provided the “last word” in the discussion. Begin another round with students sharing another of their cards.

Organizer Graph to respond to it in writing (See Figure 4) Then we will hang brown butcher paper for the Graffiti wall and make chalk, paint, markers, or crayons available. We will play blues music. Students will be instructed to write events or favorite parts from the books on the wall. No idea may be written more than once. Students will continue until the entire wall is covered with colorful graffiti. To culminate this activity, have the students examine the wall for patterns they see.

Figure 4. Sequential Organizer Graph

Sequential Organizer Graph			
Triumphs			
Obstacles			

Character: Janie

Conclusion

To teach diverse students most effectively, future teachers need to understand the cultural knowledge students bring with them to school. To most effectively instruct students of different cultures, pre-service teachers need knowledge in four major areas. First, they need the ability to distinguish cultural differences and misbehavior. Second, they must know that a mismatch between school and home literacy practices can affect students’ ability to meet academic demands. Third, they need the understanding that a disparity can exist between the language students’ use at home and the language expectations of the school environment. Fourth, they need to know that a transmission model of instruction can be problematic for minority students

Culturally-responsive instruction is the kind of teaching that recognizes and capitalizes upon differences in culture that exist in today’s classrooms. To create an environment that allows students to connect with one another and to use the knowledge listed above; we proposed the use of culturally-responsive instruction to prepare future teachers to teach literacy effectively in diverse settings. We defined the term, “culturally-responsive teaching” and explained why emergent teachers need to enhance their cross cultural understanding of multicultural educational contexts. We described strategies

designed to prepare pre-service teachers to develop the literacy of their students from different cultures most effectively. Finally, we shared examples of multicultural literature appropriate for culturally-responsive teaching.

In terms of the outcomes of these strategies, we have experienced mixed results most often in line with the research that teachers' find this information to be "overdone, irrelevant, partisan, or even threatening" (Levine-Rasky, 1998, p. 2, citing Grant & Koskela, 1986, and Menter, 1989). Initially when presented with this information students take a "color-blind" approach to instructional practice (Levine-Rasky), and they proclaim that "all children are the same." Many researchers condemn the "color-blind" approach as counterproductive and damaging since race and class define the lives of students on a daily basis (Delpit, 1998; Heath, 1984; Ladson-Billings, 2000).

When presented with the counterargument that the larger culture does see color, and that part of our responsibility as teachers is to aid students in working through issues of identity within larger cultural contexts, these pre-service teachers often respond with emotions of surprise and confusion as they consider this thought for the first time. Often, then, they also shut down. Our few minority students roll their eyes when they see this, and then with support they add their voices to the lesson. Some students are able to listen and some are able to hear. Some do neither.

The *Nappy Hair* activity in particular seems to strike a cord with our pre-service teachers as they identify strongly with the novice teacher "wronged" in this episode. It makes sense that these pre-service teachers feel empathy with a novice teacher clearly struggling to reach out to her students and who suffers for her efforts. Indeed, this same event could easily happen to any novice teacher struggling to "make a difference." In line with their identification, students resist considering fully the side of the parents and community in this account and resist considering that teachers' efforts as well-intended, but not fully, critically, or reflectively thought through with resulting disastrous consequences for her. In fact, many students never fully consider the voice of the community in resultant discussions despite the prompts and cues provided to them in the instructional framework while others do seem to find an "aha" moment as the session asks them to create action plans for choosing materials for students and sharing that information with parents.

Despite negative or neutral responses, there are glimpses of the positive. One student once commented to me (Wake), "I don't know why she [Delpit] has to be so mean about these points she's making." To which I responded, "Maybe she feels that "nice" wasn't being heard, and why do you need her to sugarcoat these ideas for you to begin with?" The student was quiet for a few moments, and then she began to really analyze what was being said as she attempted to put aside her emotions. She was working on listening and on hearing what Delpit was saying.

We noted that our results are mixed, and the outcomes are not surprising. Some students respond positively. Some respond negatively or neutrally. Even those who respond positively may or may not take this information to heart and consider this information in the implementation of their future classrooms. However, these activities do pose the questions, raise the issues, and provide a framework for critical, reflective thought around issues of multicultural education. We hope they take this information with them into their classrooms. Perhaps they do.

The work with our students encourages us to continue involving them in strategies like those outlined. Our next step will be to explore the effects of instructing pre-service as well as in-service teachers to use techniques and strategies to help them honor and respect diverse cultures. We will engage our students in exploring the cultural context of a variety of books with the intent of fostering cross-cultural understanding and opening the dialogue between students allowing them to explore racial and cultural differences. As teachers of literacy methods courses, we want our students to overcome insecurities they feel, face uncomfortable issues surrounding race and class, become familiar with multicultural literature, and truly welcome and better understand and communicate with all of their students. We will use qualitative and quantitative measures to assess the impact of these lessons on students' attitudes and beliefs. We believe these strategies will assist them in making connections with the diverse students in their future classes and strengthen their students' connectedness with schools.

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**TECHNOLOGICAL
LITERACY**

ELECTRONIC LITERACY PORTFOLIOS: PLATFORMS, PROCESS AND PROMISE A STUDY OF TECHNOLOGY INTEGRATION IN LITERACY TEACHER EDUCATION

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Abstract

This research study focuses on the process of instituting an electronic portfolio system for candidate and program assessment. Data about candidates' attitudes and experiences with technology are presented and a chronology of the organizational process in selection of electronic portfolio software platforms is provided. Survey results indicate candidates' idealistic desire to extend the benefits of technology to all students and realistic concerns about technology—costs, lack of access, inequality for students, and curricular time pressures. Recommendations include platform selection for functionality and ease of use, explicit professional development, and support structures leading to greater candidate and faculty satisfaction. This study contributes to understanding issues, challenges, and implications of electronic portfolio systems for graduate literacy education.

As the Internet becomes the resource of choice for gathering information in everyday life as well as in academic instruction, it is clear that literacy instruction needs to include strategies for gaining information from networked sources and communication technology, in addition to traditional conceptions of literacy. The constructs of “multiple literacies” and “literacy as social practice” (Harste, 2003; Gee, 1996), and the International Reading Association’s position statement on Integrating Literacy and Technology in the Curricu-

lum (IRA, 2001) provide guidance toward understanding trends in literacy instruction in the coming years. As professors of literacy teacher education, we are curious as to how we are to accomplish all the goals set forth by government, business, literacy professional organizations, school personnel, and parents for literacy instruction in a networked environment for the literacy specialist candidates we prepare and for the children whom they serve.

Purpose of the Study

The overall purpose for our research is to determine how technology can be infused into literacy teacher professional development in ways that enable teachers to select and incorporate technology into the reading and writing instructional program in their own classrooms and clinical practice. As stated by Pecheone, Pigg, Chung, and Souviney (2005):

Although there is much anecdotal evidence about the added value of engaging in a portfolio process, there is still a lack of systematic research on the effect of performance assessment on teacher learning . . . Moreover, research about the use of electronic platforms to facilitate this work and to enhance teacher learning is almost non-existent. (p. 174)

In order to accomplish the goals of integrating technology, connecting best practices in literacy education, and providing assessment data, our graduate literacy program implemented an electronic portfolio requirement. The immediate purpose for studying electronic portfolios is to discover how to develop candidates' skill in employing technology for teaching and learning; thus, two research questions were developed:

1. How do the technology experiences and attitudes of literacy specialist candidates affect construction of digital portfolios?
2. What aspects of technology do candidates and faculty perceive as relevant to their satisfaction with the software platforms used for electronic portfolios?

Related Literature

Portfolios in teacher education offer many potential benefits for self-reflective teacher practice through experiences that develop understanding of process learning and holistic assessment (Zemelman, Daniels, & Hyde, 1998). What is innovative in portfolios used in teacher education is the movement toward digitization (Barrett, 1998; Bird & Rosaen, 2005). Digital portfolios can provide richer and multi-dimensional information with video and audio media and the potential for using hyper-linked Internet materials, than traditional paper-bound ways of demonstrating intricacies of professional practice (Becker & Ravitz, 1999; Woodward & Nanlohy, 2004). Digital portfolios offer

great promise for candidates to demonstrate their competencies with multiple examples in different digital formats that can be transmitted and viewed by different audiences in different locations, at different times and for different purposes (Wilson, Wright, & Stallworth, 2003). From the perspective of program evaluation, cumulative data from individual portfolios can offer information about strengths and needs that can impact the written, taught and tested curriculum (English, 1999). The promise of a digital portfolio system for a more powerful program assessment than would be possible without technology makes the process of selecting and using an electronic portfolio system worthy of study.

Infusing technology into teacher education and professional development is predicted to help teachers increase their levels of comfort and decrease anxiety with pertinent computer applications (Goldsborough, 2003), thereby increasing the likelihood that the teachers will pass on knowledge and positive attitudes about technology to their students (Bird & Rosaen, 2005; Dermody & Speaker, 2002). The literature regarding professional development reinforces the need to contextualize educational technology as a normal part of what teachers do in classrooms and as something all teachers need to know about (Forcier, 1999; Jonassen, Peck, & Wilson, 1999; Sparks, 2002). Including networked technologies as part of the literacy environment is one means of offering literacy candidates the experience of using web-based products as tools. Woodward and Nanlohy (2004) found through interviews that digital portfolios beneficially influenced decisions made by the portfolio maker, "The flexibility of the presentation and the opportunities to embed interactive elements into their portfolio led the students to explore new ways of representing themselves" (p.234). Therefore, there is ample impetus for educators to find ways to infuse technology, from word processing to spreadsheets and more specific applications into teaching at all levels.

Choices of software platforms for electronic portfolios are available through commercial and non-commercial sources. Pros and cons of both generic and dedicated software platforms have been explored (Gibson & Barrett, 2003). Barrett's website provides a useful link to a list of commercial providers of portfolio software or software that can be adapted for portfolios (<http://electronicportfolios.org/portfolios/bookmarks.html#vendors>). Barrett and Knezek (2003) also note an Open Source Portfolio Initiative (<http://www.osportfolio.org/>). The Open Source Portfolio Initiative (OSPI) is a community of individuals and organizations collaborating on the development of non-proprietary, open source electronic portfolio software.

Method

Participants

In this study, fifty-six of sixty candidates who were enrolled in a literacy graduate program consented to participate by completing the initial survey instrument. The literacy specialist candidates teach in urban and suburban schools located within commuting distance of the university. Most have between two and six years of teaching experience. They are predominantly female (above 80%), of varied ethnicity, although predominantly white, and range in age from the mid-twenties to mid-fifties, with the greater number at the lower end of the age range.

Seven full-time faculty, all female and of diverse ethnic backgrounds, have contributed to the study's data collection. The literacy faculty collaborated in planning for the electronic portfolio by enunciating the components expected from candidates, contributing to the development of documentation and guidelines for candidates, and engaging in standards-setting meetings to establish inter-rater reliability for the rubric.

Design

This inquiry took the form of an action research study (Burnaford, Fischer & Hobson, 1996; Hubbard & Power, 1999; Johnson, 2002; Mills, 2002) in which multiple methods were used to collect and interpret data. Grounded theory (Corbin & Strauss, 1990) influenced our interweaving data collection and analysis, use of multiple sources, pattern-seeking, conceptual coding, and comparative analysis to identify themes and construct interpretations that explain the phenomena observed. Although primarily a qualitative study, pre/post course survey data were collected and quantitatively interpreted.

Instrumentation

Candidates in introductory literacy courses completed a Technology Access, Experience & Attitude Survey (Sosin, 2003) (see Table 1) during their first class meeting. The survey was created to ascertain teachers' self-reported attitudes, experience and access to hardware and software, including video, multi-media, and Internet resources. Candidates' reactions to their technology experiences were collected in an open-ended post-course questionnaire (Sosin) (See Figure 1). Course evaluations, observations by faculty, brief interviews, anecdotal accounts and the portfolio products themselves provide additional data sources.

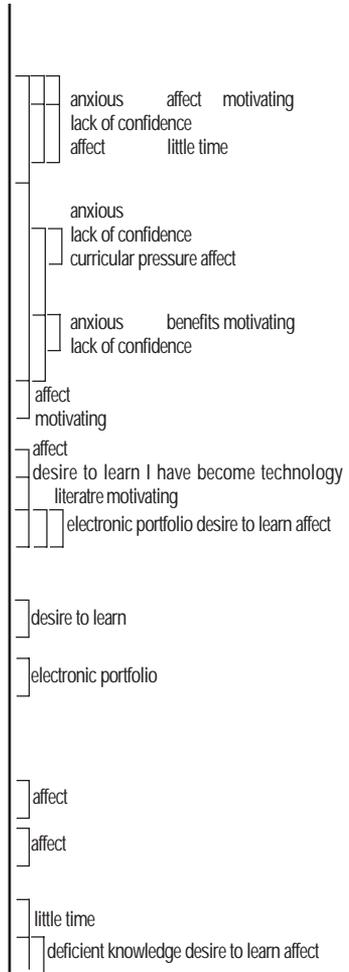
Figure 1: Data Analysis Method: Sample of text analysis screen using Atlas.ti (Scientific Software, Berlin, Germany)

What I most liked about the technology use in this class was:

1. I like the hands on experience working with PowerPoint. However, I don't feel that enough time was given to instruct the students and get a more comfortable using it.
2. Everything was new to me. It was very difficult because I was barely able to turn the computer on and I feel the technology requirements were for people with much more computer usage and experience.
3. If I could figure out how to use PowerPoint I think that it would be useful tool in the future.
4. I just like technology, and I learned something that will be very useful to me in the future, i.e. PowerPoint.
5. I liked the fact that I learned how to prepare a PowerPoint presentation. I never knew how to do this prior to this class.
6. I enjoyed learning about an electronic portfolio. However, I found the linking component difficult.
7. Learning about powerpoint.
8. Becoming more familiar with PowerPoint.
9. We were allowed time to do most of or portfolio in class, with the supervision of our teachers.
10. Bruce was helpful in learning how to use PowerPoint.
11. I enjoyed learning how to set up links.

What I liked least about the technology use in this class was:

1. The lack of time dedicated to the technology section of the course
2. I liked everything. I just found it difficult.



Procedure

Beginning in 2001 in preparation for accreditation, the literacy faculty members decided that each reading specialist candidate would create an “electronic” portfolio and made portfolio creation a requisite of the introductory and final courses in the graduate literacy program. The platform selected for the portfolio was a generic web page, for which candidates were taught to create a page and link to documents placed on the University’s server via file transfer protocol (ftp). Literacy candidates were frustrated by the complexity of creating web pages and the literacy faculty had similarly little experience and understanding of the technology required to create “electronic portfolios.” As a result, the electronic portfolio assessment system was considered a “pilot,” in which no candidate was penalized for an unsatisfactory or incomplete portfolio.

In 2002-2003, in preparation for submission of a program recognition application to IRA, literacy faculty collaborated on a program handbook for entering literacy candidates. The handbook clearly related instructions for candidates to use the electronic portfolio to demonstrate achievement of the Standards for Reading Professionals, Revised 2003 (International Reading Association, 2004) and a schedule for assessment at the three transition points, exploration in the first literacy course, synthesis prior to admittance into the practicum course, and reflective practice in the final literacy course. The handbook provided faculty members and candidates shared understanding of the purposes for the electronic portfolio, and its intended use as evidence of attainment of professional competencies.

In 2002 and 2003, a PowerPoint template replaced the webpage and met privacy concerns. Problems with lack of uniformity and few high quality models to share as examples contributed to continued dissatisfaction with aspects of the electronic portfolio. The variability and the uniqueness of the portfolios on both the generic web page and PowerPoint platforms made it difficult to establish inter-rater reliability and/or to gather assessment data for program evaluation. Despite improvements in ease of use, frustration with the technological demands and the time-consuming nature of the portfolio assignment resulted in complaints from both candidates and faculty.

Therefore, in 2003, the School of Education Dean formed an ad-hoc technology committee authorized to review and pilot third-party portfolio software systems. The software review team created criteria for assessing portfolio platforms, including functionality of the data-handling modules, ease of use, ability to protect privacy, availability of support and documentation, budgetary constraints and cost, and the “look and feel” of the product as perceived by faculty and candidates.

In 2003-2004, the review team chose to pilot Chalk & Wire (www.chalkandwire.com) and College LiveText (www.collegelivetext.com), web-based

systems that provide portfolio platforms. Candidates and faculty members kept logs of their time and activities, noting positive and negative aspects about each of the platforms. Logs were reviewed to determine which platform provided a better process for making and assessing portfolios. During the trial period, the candidates and faculty found Chalk & Wire more difficult to manage than LiveText for reasons including the ease of software use and the adaptation of the literacy program's requirements to the product's features. LiveText was perceived to have provided a more positive experience for candidates as they entered annotations and uploaded artifacts. Based on the pilot results, the School of Education made the decision to select LiveText as the official e-portfolio system in Fall 2004. The LiveText roll-out process continues at present.

Results

Quantitative data representing the response for survey questions 1-25 (Table 1) were calculated using Statistical Package for Social Sciences (SPSS). Descriptive statistics from the survey results for Spring 2003, (N=56), reveal literacy graduate candidates' experiences with technology. Likert scale (1=Strongly Disagree to 5=Strongly Agree) results indicate the literacy graduate candidates have broad experience with word processing software (Qu. 10. Mean=4.04, SD=1.03), use email (Qu. 7. Mean=3.59, SD=1.42), and conduct Internet searches (Qu. 8. Mean=3.48, SD=1.33). However, respondents have had little experience with spreadsheets (Qu. 13. Mean=2.14, SD=1.33), and indicated some anxiety with computers, (Qu. 5. Mean=3.05, SD=1.13), online courses (Qu. 12. Mean=1.87, SD=.99), and most important to the portfolio process, web page creation (Qu. 18. Mean=1.96, SD=1.09) and having an electronic portfolio (Qu. 25. Mean=1.80, SD=1.18). Attitudinally, most students professed to enjoying using computers when surveyed (Qu. 6. Mean=3.71, SD=1.26), to use the Internet as a resource (Qu. 19. Mean=3.95, SD=1.14) and incorporate technology in their professional lives, sharing its benefits with colleagues (Qu. 20. Mean=3.78, SD=1.17 and Qu. 21. Mean=3.93, SD=1.02). Therefore, the data indicate conflicting attitudes and experience levels, where many of the candidates express comfort and desire to incorporate technology, but have demonstrated insufficient experience with applications needed for electronic portfolio construction and maintenance.

Qualitative data from the survey and post-course questionnaires were analyzed using constant comparative analysis with Atlas.ti (www.atlasti.com), an ethnographic textual analysis software product. Themes emerging from the data included candidates' strong desire to learn and use technology themselves despite awareness of their own knowledge deficiencies, as well as their discomfort with pressures exerted on teachers to cover mandated curriculum,

leaving little instructional time for implementing new technologies in literacy teaching.

Anecdotal data, collected since the beginning of the study, indicated that the portfolio requirement created high levels of stress, anxiety, and dissatisfaction, especially for candidates and instructors who had little technology experience. Candidates complained to faculty members and the literacy chair that the portfolio task was “too difficult,” and there was “not enough time” to develop a portfolio during the initial literacy course. Confusion and misunderstanding of the purposes and content of the course in which the electronic portfolio served as the major assignment negatively impacted instructor evaluations. When candidates were expected to present completed portfolios in the final Capstone literacy course their frustration was evident. Otherwise competent candidates who professed to be experienced and comfortable with technology were unable to capably create a web page, to adapt a PowerPoint template, or to adequately produce a portfolio on a web-based product. Literacy candidates produced portfolios that did not seem representative of the quality of their coursework. Links to artifacts and documents did not connect, there were few or inadequate annotations, lack of substantive reflections, fewer than expected artifacts, and despite encouragement and opportunities to incorporate Internet resources and media, little use of multi-media technology.

For faculty members, even though an electronic portfolio rubric containing criteria for content and mechanics was collaboratively produced and published in the Literacy Program Handbook, it remains very difficult to interpret the results of electronic literacy portfolio assessment. While the portfolio assessment rubric has evolved, faculty find applying it time-consuming and difficult, particularly as the portfolios are still being presented to individual faculty using different software platforms. While ideally, candidates should be able to select the artifacts that they feel best demonstrate their individual attainment of competencies, the assessment of whether candidates meet IRA standards is difficult for faculty members to evaluate. Candidates are generally unsuccessful in composing commentary that clearly links their work to the Standards for Reading Professionals (IRA, 2004). Use of the literacy assessment rubric remains contentious, and individual faculty members have insisted on bypassing the rubric with Pass/Fail grades, which make it impossible to collect data from all the candidates. Even though a rubric was collaboratively created and considered valid, the portfolio assessment rubric (Figure 2) as adapted from Danielson (1996) was not accepted by all faculty members as meaningful in evaluating the actual quality of graduate literacy candidates' work.

Since 2004, except for literacy candidates who began the program using web pages or PowerPoint for their portfolios, all portfolios are assessed using College LiveText. Figure 2: Literacy Portfolios Assessment Report using College LiveText provides indication of current LiveText literacy portfolio

Figure 2: Literacy Portfolios Assessment Report using College LiveText**ASSESSMENT SUMMARY**

Description: to date 7/06

Milestone: All Scoring: All

Rubric: Literacy Portfolio Rubric 06/02

	DISTINGUISHED (4 PTS)	PROFICIENT (3 PTS)	BASIC (2 PTS)	UNSATISFACTORY (0 PTS)	MEAN	MODE	STDEV
Selection of Artifacts	0	30	13	3	2.52	3	0.80
Annotations & Reflections	0	23	12	11	2.02	3	1.21
Composition, Mechanics, Voice/Style	0	24	21	1	2.48	3	0.62
Technology & Media	0	15	29	2	2.24	2	0.67
Selection of Artifacts IRA2003-1, IRA2003-2, IRA2003-3, IRA2003-4, IRA2003-5							
Annotations & Reflections IRA2003.1, IRA2003.2, IRA2003.3, IRA2003.4, IRA2003.5							
Composition, Mechanics, Voice/Style							
Technology & Media							

assessment activity, showing 46 assessments of 28 portfolios at multiple assessment points over time. Figure 2 identifies the criteria assessed, the relationship to IRA Standards, and the number of portfolios assessed at each of the achievement values.

Discussion

The survey of literacy specialist candidates disclosed that in general, they:

- are aware and appreciative of technology personally and professionally;
- have broad if not extensive, experiences with generic word processing and Internet search, but not with specialized software applications such as web design, spreadsheets or electronic portfolio creation software.

While it is difficult to discern differences attributable to the intervention of one course that employed technology in the attitudes of the participants, comments were particularly eloquent in demonstrating the candidates' awareness of the importance and inevitability of technology in literacy (Table 1). The responses indicated desire to learn new applications, and satisfaction derived from their own technological accomplishments. There were many expressions of the desire to gain from and provide benefits of technological skills to students in their classrooms.

Thematic analysis found idealistic and realistic concerns about technology, costs, lack of access and inequality for students, and time pressures, despite desire to extend the benefits of technology to all students. Candidates

Table 1: Technology Access, Experience and Attitude Survey Descriptive Statistics

Note: 1= Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly Agree

QUESTIONS	NUMBER		MEAN	SD
	VALID	MISSING		
1. I get nervous when using a computer.	56	4	2.18	1.25
2. I enjoy computer games.	56	4	3.18	1.31
3. Computers are hard to learn.	56	4	2.70	1.24
4. I can program a VCR.	56	4	3.61	1.37
5. I get anxious learning new software.	56	4	3.05	1.14
6. I like using computers to do my work.	55	5	3.71	1.26
7. I use email often.	56	4	3.59	1.44
8. I often use the Internet to do my work.	56	4	3.48	1.34
9. I often use computers in my teaching.	52	8	2.67	1.20
10. I often use word processing.	56	4	4.04	1.03
11. I can locate and use graphics and photos.	56	4	3.09	1.42
12. I have experience in online courses.	56	4	1.88	0.99
13. I use spreadsheets.	56	4	2.14	1.33
14. I know about Acceptable Use Policies.	55	5	2.31	1.29
15. I know about copyright regulations.	56	4	2.98	1.29
16. I use presentation software.	56	4	2.23	1.28
17. I evaluate Internet sources.	56	4	2.41	1.23
18. I can create a web page.	56	4	1.96	1.10
19. I think of the Internet as a resource for students.	56	4	3.95	1.14
20. I use technology in my professional life.	56	4	3.78	1.17
21. I share my knowledge with colleagues.	55	5	3.93	1.02
22. I can teach using web-based resources.	55	5	2.65	1.34
23. I communicate with students online.	55	5	2.29	1.23
24. I do multi-media projects.	56	4	1.98	1.11
25. I am keeping an electronic portfolio.	55	5	1.80	1.18

felt strongly concerned about inequities in distribution of the advantage of technology. Concerns over cost and access for K-12 students were widely voiced, which may be responses to urban teaching situations and the digital divide (Wikipedia, 2006). These attitudes and survey results were also evident through observations, interviews, and from anecdotes and interactions.

Even though the same candidates were effusive about technology in their survey responses, in anecdotal comments, interviews, and as observed in technology activities, they demonstrated inexperience with computer concepts and resistance to technology assignments. As found by Wilson, Wright, and Stallworth (2003), candidates considered the literacy program's digital portfolio additional work to be graded rather than a vehicle for professional reflection.

Lack of a uniform and consistent message from faculty contributed to an atmosphere of resentment and resistance. Similar to Strudler and Wetzel's (2005) faculty informants, who reported that their students often waited until their electronic portfolios were due or a checkpoint was pending, literacy candidates were often not diligent in updating their portfolios. A few candidates expressed frustration and anger at the literacy program for being required to submit an electronic portfolio during their last literacy course. Nonetheless, while these literacy candidates were sometimes vocal and difficult to placate, they were the minority.

Plan of Action

After reviewing the results of this study, several actions are recommended. The first is to strengthen professional development for faculty members. A concerted effort by the School of Education is underway to reach and communicate awareness and facility with the portfolio system for both full time and adjunct faculty members. Faculty members need experience in using the electronic portfolio software platform and the time to practice applying the rubric and interpreting evaluations. Administratively, the director of the Faculty Center for Professional Excellence (FCPE), the University's faculty development laboratory, has been integrated into the School of Education's standing assessment committee as an ex-officio member. An FCPE staff technologist has been assigned to offer portfolio support to faculty. The LiveText platform and its features, including the assessment module, are being explored for capacity to provide useful information about the literacy program's effectiveness. The establishment of inter-rater reliability and the extraction of information that can be used for program enhancement are keys to successfully employing an electronic portfolio system.

Second, ongoing professional development opportunities for literacy specialist candidates need to be expanded and strengthened. Candidates need

guidance and modeling in selecting, uploading, and commenting on their work in relationship to standards (Strudler & Wetzel, 2005). Explicit modeling by course instructors helps the candidates with the responsibility to demonstrate their competencies in meeting IRA's professional standards, not just with one or more artifacts, but also with critical and self-reflective commentary that specifically responds to each element enumerated in the standard. The literacy faculty is collecting samples of successful literacy professional portfolios to share as exemplary models.

A peer-to-peer technology assistance program specifically designed to help with candidates' portfolio needs has been initiated at the University's Learning Center, including equipment loans and training in the use of digital video cameras. Integrating multi-media projects into literacy courses offers candidates opportunities to use interactive technology in authoring and enhancing their portfolios (Woodward & Nanlohy, 2004). As more candidates create LiveText portfolios, ease of use and practice manipulating the software has had the unexpected benefit of mellowing formerly resistant faculty members to appreciate the power and potential of the electronic medium.

This study offers baseline data towards building understanding about technology infusion in literacy education. Evaluation of our literacy program's effectiveness, using data from electronic portfolio assessments, is a work-in-progress (Combs, Jampole, & Oswald, 2003). Future studies are planned to focus on the transfer of facility with electronic portfolios and technology and the impact on student achievement in the reading and writing instructional program. Continued study of the effects of technology in teacher education, and its influences on program effectiveness are intended to contribute to the body of knowledge in this field, as well as to provide useful guidance and support to other institutions on the same path.

Conclusion

This study is limited to a subsection of the community of literacy specialist candidates at a specific institution; it is not representative of the entire population of literacy specialist candidates. As an action research study, this inquiry leans heavily on researchers' interpretations of qualitative data. While quantitative data and multiple sources triangulate findings, they are from a limited sample and cannot be generalized to a greater population.

It is our hope that electronic portfolios encourage constructive thinking and enhance literacy teacher education. Lessons learned from the process of implementing an electronic portfolio assessment system at our institution may enable other educators to apply "tech knowledge" in professional practice. What will ultimately demonstrate effectiveness will be evidence that technology is seamlessly integrated into K-12 classrooms (Leu & Kinzer, 2000).

As Morrow, Barnhart and Rooyakkers (2002) describe, our purpose is to “turn potential into reality and to use technology in classrooms in every way possible” (p.230). With support from platforms and process, the promise of electronic portfolios can be achieved.

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ENGAGING THE MIND THROUGH THE FINGERS: AN ANALYSIS OF ONLINE INTERACTION AND STANCE

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Abstract

Online learning is gradually gaining strength and popularity in national graduate programs. The challenge for online learning is to develop pedagogically effective technology-mediated learning environments that enhance the quality of education. This paper is an analysis of online interaction in one class. It discusses how to invigorate online interaction by paying attention to stance, course set-up, and the interaction of teachers and students.

Introduction and Purpose

Online learning is gaining strength and popularity in graduate programs across the nation. Between 1995 and 1997, the number of online classes offered in two and four year institutions nearly doubled (US Department of Education, 2002). In the 1999-2000 school year, 124,240 people earned a Master's degree in Education (U.S. Department of Education, 2000), with approximately 12% participating in some form of online learning.

In most online courses, students will typically earn high marks if they successfully answer questions, pass exams, and complete assignments. In some online classes students are asked to reply to other students' discussion-board entries, but content is only one aspect of the teaching-learning act. Teacher-to-student and student-to-student interactions are critical in motivating students to learn (Simpson & Galbo, 1986; Vygotsky, 1978). Interaction has been identified as one of the major constructs in online learning (Bradburn, 1998; Liu, Lee, Bonk, Su, & Magjuka, 2005; Vrasidas, 2002). Interaction is defined as "behavior in which individuals and groups act upon one another . . . a continually emerging process, as communication in its most inclusive sense" (Simpson and Galbo, 1986, p. 38). Some teacher educators

are concerned about whether the interaction and rapport found online can be as powerful as in face-to-face settings (Martinez & Sweger, 1996).

As opportunities for online learning increase, so must our understanding of online teaching and learning. Positive online interactions are critical to learning and must be supported and clearly understood if online learning is to occur. We must not rely on technological savvy to make up for inadequate teaching, for “no technology can overcome poor teaching; poor teaching is actually exacerbated in distance education applications” (Barker, 1995, para. 8). Rather, we must seek to offer a dialogic perspective that encourages “to-and-fro” conversations. We must also increase a participant stance, reduce transactional distance, and scaffold our students’ efforts as they navigate online learning.

The purpose of this study was to investigate the nature of online interaction and ultimately identify ways to invigorate the online interaction of teachers and students by paying attention to stance, course set-up, and the interaction of teachers and students. This paper focuses on one interaction between several peers that occurred online over the span of nine days. Practical application ideas for online course creation were also given. By zeroing in on interactions to one open-ended question, various aspects of interaction come to light, most notably the stance that teachers and students assume while participating in online learning. A guiding question for this research was, “Can online interactions actually facilitate communication, or does the computer-as-mediator between person and content inhibit true communication?”

Literature Review

Beller and Or (1998) report that “the successful implementation of technologies in leading universities has, among other things, increased the status of distance learning and is beginning to blur the distinction between on-campus and distance learners” (para. 13). Thus, the educational challenge is to develop pedagogically effective technology-mediated learning environments that truly enhance the quality of education (Althaus, 1997) by attending to interaction and the stance that participants assume while online.

Distance educators have added a fourth type of interaction to the traditional three: learner-teacher, learner-content, learner-learner, and more recently learner-interface (Hillman, Willis, & Gunawardena, 1994).

1. *Learner-teacher interaction*: students emailing teachers for clarification or explanation of content or assignments.
2. *Learner-content interaction*: students reading a textbook, watching a video, or conducting research using texts or electronic sources.
3. *Learner-learner interaction*: students giving and receiving information about the subject at hand (i.e. small groups, peers).

4. *Learner-interface interaction*: occurring only online; students using technology to learn. The nature of this type of interaction is influenced by learner abilities, previous technology use and success, and comfort with the computer.

Whether learner-interface interactions are successful depends on how the course is designed (Hillman, Willis, & Gunawardena, 1994). Thus, interactions do not just happen—they need to be an intentional part of the instructional design (Haythornthwaite, Kazmer, Robbins, & Shoemaker, 2000; King & Doerfert, 1996; Preece & Maloney-Krichmar, 2005). In fact, students who interact more tend to feel a greater amount of satisfaction with online learning (Pena-Shaff, Altman, & Stephenson, 2005).

Interactions occur in every teaching/learning experience. Most face-to-face classrooms reflect an Initiate Respond Evaluate (IRE) pattern (Mehan, 1979) where teachers mainly initiate questions and evaluate students' answers to specific questions. Thus, the students' typical role is to respond to teacher-initiated questions. Experts in classroom discourse found that the IRE pattern, which has been called a *spectator stance* (Britton, 1993), is not necessarily an optimum pattern for student learning (Cazden, 1988; Mehan, 1979) even though it is pervasive. Instead, researchers argue that better interactions are found in genuine discussions (Dillon, 1994) or grand conversations (Eeds & Wells, 1989) in which students and teachers assume a *participant stance* (Wegmann, 2001) or use language in personally meaningful ways (such as exploring a possibility or investigating a personal inquiry). James Britton (1993) first coined the terms *participant* and *spectator* when writing about using language while musing over silent reading; however, these terms can be used effectively here as well since online classes involve silently reading a text and responding in writing.

The participant stance (Wegmann, 2001) is one in which learners and teachers can explore topics, wonder, and generally co-construct the lesson. This stance can be seen online in discussion boards because these are places in which students have freedom to reply to teacher-generated questions, as well as create their own questions. Vastly different from the IRE pattern in which the teacher's voice is dominant, the participant stance occurs when teachers and students grapple with complicated issues and use language for various purposes. Students enacting a participant stance, face-to-face or online, can be compared to participants at a sporting event. No longer are they on the sideline as spectators talking *about* language, these participants are wondering, supposing, questioning, and generally using language to get things done.

Online Interactions

Historically, researchers have analyzed oral interaction patterns to determine the nature of utterances. In an online course, the discussion board is used extensively as the vehicle for interactions (Burnette & Buerkle, 2004; DeWever, Schellens, Valcke, & Van Keer, 2006; Pena-Shaff, et al., 2005). The chains of utterances (Bakhtin, 1986) on a discussion board may take place over the course of a few days or an entire semester. Instead of face-to-face discussions to analyze for interaction patterns in real time, asynchronous discussion boards which occur at participants' convenience and not in "real time" determine the nature of the utterances in one online course. Table 2 is the transcript of an asynchronous discussion that took place over the course of nine days. Kristy and her peers were responding to a chapter they had read from a text by Lucy Calkins (1994).

According to Bakhtin (1986), all utterances are in answer to, continuation of, or in anticipation of, other utterances. He goes on to say that utterances are either *dialogic* or *monologic* and the two are naturally opposed. Monologism relates closely to an IRE pattern, because the teacher controls the type, frequency, and topic of speech allowing for a one-way flow of utterance. On the other hand, Bakhtin suggests that an ideal form of communication is dialogic which is what occurs in a participant stance (Wegmann, 2001). This dialogic thought is critical to achieve a stance in which teachers and students share information while learning the content.

Even though it is ideal, dialogue cannot be automatically assumed in online courses even though instructors may create opportunities for interaction during the course. Dialogue and the communication that results from it is influenced by culture, experiences, facility with language, affect, and willingness to participate, all part of Rosenblatt's (1994) linguistic experiential reservoir. The meaning of the online discussion board entry does not reside solely in the author's intention. Rather, it resides in the nexus of the reader, the text, and the evocation (Rosenblatt) that occurs at each unique reading event.

Methodology

Design

As a result of my interest in online interactions and wondering whether I could develop pedagogically effective technology-mediated learning environments that enhanced the quality of education, I designed a qualitative study in which I analyzed online interactions. These interactions, I reasoned, would describe students' engagement with the course content, a critical aspect of the quality of teaching and learning. This study uses a participant-observation approach (Spradley, 1980) that is naturalistic (Lincoln & Guba,

1985) and interpretive (Erickson, 1986). Keeping qualitative methodology firmly in mind, I designed the study as a funnel: analyzing all of the interactions that were spawned by 12 discussion-board questions, then narrowing to analyze more closely one representative discussion-board entry and all of the reactions it generated (I called this a *response/reaction group*). This allowed me to follow a constant comparative pattern in which I analyzed the “part” in reference to the “whole.”

Participants

The participants of this study were 15 students who were in the early stages of their Master’s degree in Reading Education. They had taken one course online the semester before and were part of a cohort group. Five students knew each other outside of class; two were in one geographical area, and three in another. The majority of the students lived in Texas, where the university was located, but three students lived outside of the state in North Carolina, Wyoming, and Georgia. All participants were currently teaching in elementary classrooms (grades K-5), but this course took place during the summer when only one student was teaching.

Procedure

In an online course, the discussion board is used extensively as the vehicle for interactions (Burnette & Buerkle, 2004). Even though students and teachers communicate through email, the discussion board is the best place to find multiple participant interactions. The chains of utterances on a discussion board may take place over the course of a few days or an entire semester.

To try to determine whether online communication was supported in an online environment, I collected, read through, and analyzed all of the discussion board *responses* (those postings that were in answer to a teacher-generated discussion question) and *reactions* (those postings that replied to peers’ responses, a part of the grade for the course) in one particular course that focused on elementary-writing instruction and had 14 students enrolled. (I called one response and all of the actions they prompted a *response/reaction group*.) The sources of data were: course content and assignments (including 12 formal discussion-board prompts), field notes, discussion-board entries (over 500 pages of written transcripts), and personal emails from the students as part of course evaluation (10 students supplied insider information in the form of emails about the course and discussions). I was an instructor of the course but had not personally developed the course. My philosophy as instructor with this particular class was to promote student-to-student interaction as much as possible by purposely staying quiet in the discussion boards, except when I was asked a direct question. I read each entry and evaluated students based on a rubric, which I then sent back to

each student. (See Appendix for a modification of the rubric used.) I provided the stimulus for discussion and then chose to observe without joining in the discussion. Often, my questions prompted students to raise other questions.

Although a thick, rich description of each student's interactions was my intent, a complete analysis of all discussion board entries is beyond the scope of this article. The 12 discussion responses and reactions varied in length and depth of content coverage. They ranged from 2 to 15 interactions for each response/reaction group. In all, I analyzed 200+ transcribed pages, focusing on 3 pages from one group for this study. I chose one representative response/reaction group that included 6 of the 14 class participants. This discussion board group provided a "bounded instance" (Stake, 1985) because it consisted of one student's response and all of the reactions from the class to this particular response. This bounded response/reaction group was representative because the average characteristics of all of the response/reaction groups as a whole were similar to the focus response/reaction group. Table 1 displays these characteristics.

Table 1. Characteristics of Average Discussion-Board Response/Reaction Groups of the Whole Class Compared to Actual Focus-Response/Reaction Group

	AVERAGE OF ALL RESPONSE/REACTION GROUPS	ACTUAL DATA FROM FOCUS RESPONSE/REACTION GROUP
Number of interactions	6	7
Transcribed pages per response/reaction groups	2	3
Length of time from response to last reaction	10 days	9 days, 1 hour

Results

As Mischler (1991) argues, simply writing down words is the first act of interpretation. I went through several stages of transcriptions in order to capture the nuances of this response/reaction group. When deciding how to transcribe and display the discussion-board entries, it did not seem like enough information to simply write out what the participants said. In doing so, I felt the tone of the messages would be lost and I wanted to focus on the *moves*, or possible reasons why participants said what they did. Table 2 is my initial analysis of this discussion. (Since the focus of this study was interaction and

Table Two: Brief Analysis of Possible Moves that Identify the Stance of Participants in One Discussion-Board Entry in an Online Literacy Course

PARTICIPANT, DAY, DATE, TIME	ACTUAL WORDS OF PARTICIPANTS:	POSSIBLE MOVES IDENTIFYING STANCE OF PARTICIPANT (STANCE IN PARENTHESES)
Kristy— Tuesday, Feb. 11, 9:45 pm.	I think that Calkins can teach us to respond with belief. Believing that your student is a writer and that they have many reasons to write. She also showed that when responding to what may not seem like much of a writing, respond with a positive attitude. Also, to question the student and make them think further. Calkins' attitude made me think of Matthewson's theory and making the student feel important and in a warm environment. I think that if we believe in our students' writing from the very beginning, we are giving them a head start.	Introducing a new topic Sharing opinion Connecting to other readings Sharing opinion, beliefs (Participant Stance)
Michael responds to Kristy— Wednesday, Feb. 12, 8:24am	Students need to have meaning in their writing. I have to give mine topics that they are interested in or they cannot write half a page. I give them a topic they care about and they write two pages. I have very little time to do writing assignments in my class. I teach in the high school and all we focus on is the TAKS test. My students are getting tired of hearing about this test. Students also need positive reinforcement. If they know that you believe in them and that you are going to support them then they will perform for you.	Connecting to his own classroom experiences Introducing a new topic Sharing opinions, beliefs Connecting to his own thinking (Participant Stance)
Mary Ann responds to Kristy— Wednesday, Feb. 12, 8:20pm	You know I agree that not all she says about how a teacher should teach can be applied in the real classroom. These professors have been out too long. When did she write the book? 1980. The test taking is crazy and in real life upper grade teachers need to help kids pass the test. I know in kinder I am like one of the teachers in the early part of the year, however in the later part of the year I am like the other teacher. Kids need to learn about Clay's principles and they must be taught how to use them. And the sooner they are exposed to them in Guided reading and Guided writing the better it is for them. I use approximation but I need to tell you sooner or later they need to start making progress. I was happy to see the connection to Matthewson. I really see the Cambourne in Caulkin's work. Since I see so much of Cambourne's theory; Approximation, Expectations, Responsibility, etc. I have been wondering about these theorists: Clay, Cambourne	Rapport building Sharing opinion, "us vs. them" Agreeing with Michael, Connecting to her own classroom Connecting to other readings Rapport building, Sharing opinion, Rapport building with Kristy Wondering Connecting to other readings Posing question to class

	and Calkins. Who came first? I see them modify and re-state the same thing. Only it seems that Cambourne describes the learning (reading and writing processes) more clearly. I wonder if he came last? What do you think?	(Participant Stance)
Caroline responds to Kristy— Thursday, Feb. 13, 11:17am	Kristy, I think you have touched on one of the major points from the Calkins article- the point that oral language is developed in non-sequenced, whole-task basis, so writing should be thought of in the same way. I probably feel as I do because so much of my training and classroom practice was skills-based. I am really working to shift some of my paradigms to a more whole-task, non-sequenced point of view. If I were in the classroom regularly, I believe that working with children on purposeful writing tasks across the curriculum would help settle my qualms.	Rapport building Sharing opinions Connecting to her own thinking Revealing her own struggles (Participant Stance)
Frannie responds to Kristy— Thursday, Feb 13, 5:56pm	Calkins draws two different views of teaching writing. I could see the Venn diagram in my head. What is important is what's in the middle here? Do both these views have merit? Of course they do. The end goal is to have successful writers. They need a little of both sides. They need structure and building blocks and they need freedom to experiment and "feel" their writing. This is where educators get hung up, there is no one way. A good teacher will take from both sides to find the appropriate mix of the two. If the teacher is wise and crosses her fingers, her choices 'should' take care of the assessment monster.	Suggesting a way to organize information Sharing opinion Connecting to other readings Responding to Michael's comments (Participant Stance)
Traci responds to Kristy— Thursday, Feb. 13, 8:10pm	Your comment about questioning the student to make them think further reminds me of Carol Avery's book <i>And With A Light Touch . . .</i> It is filled with examples of her guiding students toward what they need to be doing in their writing. It's not about avoiding instruction, but using questioning and other techniques to draw it out of students so that they discover much of it for themselves.	Connecting to other readings (Participant Stance)
Kristy replies back to Traci— Thursday Feb. 20, 10:45pm	Sounds like an interesting book. I will have to check it out. I think students need every opportunity to think for themselves. Sometimes we hand them too many things with straightforward answers and do not give them a chance to think.	Building rapport with Traci Sharing opinions Connecting with her own thinking (Participant Stance)

not content analysis, I did not conduct inter-rater reliability of the moves each participant assumed. Further research of this type is needed in this area and will be conducted at a later date.) Kristy and her peers were responding to a book chapter written by Lucy Calkins (1994), and the question, "How does Calkins' work 'fit' with what you know about teaching writing in classrooms?"

This interaction group, which is made up of one student's response and

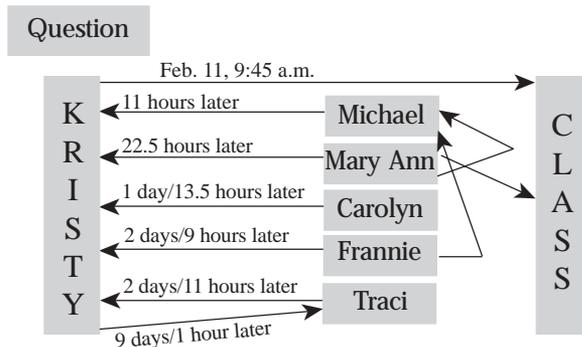
other students' reaction to the response, is notable in several ways. Students showed evidence that they were connecting the content of their reading assignments to:

- their own thinking (Michael's response; Caroline's response; Kristy's last response),
- their own classrooms (Mary Ann's response; Michael's response),
- other readings (Mary Ann's response, Traci's response, Frannie's response).

The above-named episode took place over nine days, with most occurring over a two-day period. As students created their written responses on the discussion board, they were able to reflect on class readings and previous responses. Kristy's response at the end (as well as a personal email communication about this particular episode) shows that she read the other responses and considered their perspectives. These students are not merely interacting following an IRE discussion pattern (Mehan, 1979). They were instead authentically voicing their opinions about theories, synthesizing their own ideas, and drawing attention to the aspects of the reading they found salient. In effect these students enacted a participant stance and displayed Bakhtin's (1986) notion of dialogue, with much learner-to-learner and learner-to-content interaction. They relied on their social ability (Laffey, Lin, & Lin, 2006) or capacity to read and participate in the social atmosphere of the online class.

Findings

Another way to visualize the previous discussion-board entry follows:



This chart shows the complicated nature of interactions and shows that one discussion-board entry can incite numerous other reactions. Kristy's response was met with five reactions, three of which created other responses. As an example of the dialogic chain (Bakhtin, 1986), Mary Ann not only responded to Kristy's answer and referred to Michael's response, she challenged the class as a whole. (In reality, it could be reasoned that all partici-

pants challenged the class as a whole, because this discussion board could be read by all participants.) When Mary Ann responded to the end of semester questionnaire, she revealed that her fondest memory from the class was the interaction on the discussion boards. "I really loved the interactions! I'm the kind of person who pushes the boundaries and who makes people mad, more often than not. I liked to get online and stir things up!"

Conclusions

This focused response/reaction group analysis sheds light on several aspects of online interaction. First, questions that teachers pose need to be open-ended enough to allow dialogic participatory responses. The questions that teachers choose to use will either invigorate or shut down interactions. The question in the focus response/reaction group ("How does Calkins' work "fit" with what you know about teaching writing in classrooms?") was designed to try to make sure students had read the assigned chapter and to discern if they could synthesize the information in the chapter with their own experiences and other readings. It was also designed to encourage a participant stance. Alternatively, the question could have been targeted specifically to Lucy Calkins' characteristics of effective writing, the atmosphere she suggests, and ways in which effective writing should be presented in classrooms. Then, other questions might have asked them to synthesize this chapter with theories previously studied. A final question might have asked students to give one personal example of writing instruction in practice that related to the chapter. All of these questions would have served the purpose, but it would have created a monologic stance with only teacher-generated questions. The example question filled all of the purposes set forth because it was open-ended and allowed students to respond in a participatory manner. Assuming a participant stance like this gives students an idea of what to respond to, yet allows them the freedom to interpret as well as inquire and wonder. It also invigorates online interaction by preparing for a participant stance during course set-up.

Another conclusion concerning course set-up can be drawn from this analysis. Teachers can provide examples and rubrics to guide students' responses. This will enable students to know exactly what is required before they respond. The students in this study were shown an in-depth rubric, similar to what's shown in the Appendix. Students knew what type of responses they were expected to write and were evaluated each week. By paying attention to examples and rubrics, teachers can set up instances that encourage a participant stance and interaction between teachers and students.

A third conclusion concerns the asynchronous nature of the interactions of teachers and students. Asynchronous discussions, like those on the discussion board, occur outside of "real time." Thus, interactions between teach-

ers and students look and feel different from face-to-face classes. Students and teachers can log on at their convenience to read and contribute to the discussion board, which makes it asynchronous rather than synchronous. Contributing to asynchronous online discussions may offer students time to reflect on peers' comments, sometimes resulting in profound ideas. In an end-of-the-course survey, one student wrote "I feel like I am better able to express myself online. I am able to think and reflect on what I am going to say before I say it, which is something that I struggle with in person." Her feelings were echoed by several in this particular class.

Finally, teachers and students need to learn a different set of communication cues when interacting online. Communication cues, which are critical in all teacher/student interactions, are different online so the written word's importance is heightened. In a face-to-face setting, cues like tone of voice and nonverbal communication can strengthen interactions. In an online platform, there are no opportunities for students to use these cues to modify their responses. For example, if students reply to a discussion-board entry, there is little possibility for immediate feedback or self-correction. In contrast, if students make comments in face-to-face classes and the instructors frown, they would be able to pick up on nonverbal cues and self-correct, modify, or support their answers. Some instructors embrace cue systems like emoticons (symbols that express emotions, such as ":)") meaning a smile or a lighthearted comment or joke). So, teachers and students need to learn a different set of communication cues while interacting online.

Implications for Practice

Another implication is that the time involved in teaching online courses effectively may require increased effort for longer periods of time (Hutchins, 2003; Martinez & Sweger, 1996). No doubt, this was due, in part, to the instructors' attention to establishing routines for interaction with students. Even so, *transactional distance* (Short, Williams, & Christie, 1976), or the psychological gap that occurs when students and teachers are separated geographically (Moore, 1991), may lower students' and instructors' satisfaction. *Social presence* is the degree in which the user feels a part of the mediated interaction (Garrison, 2006). As such, the realization of social presence is critical to the success of the online student and may cause the online student to engage and remain engaged throughout an online work session. One implication that may be inferred from this analysis is that instructors need to reduce transactional distance by designing courses that encourage a participant stance (Wegmann, 2001) which promotes social presence.

Another implication is that the time involved in teaching online well may come at a high personal price—increased effort for longer periods of time.

According to the *Distance Education Instruction by Postsecondary Faculty and Staff: Fall 1998* (NCES, 1998), faculty members who taught in distance-education courses appeared to interact with students more than their counterparts who taught in regular classes (Imel, 1985.) Those professors who taught in distance-education courses had office hours (virtual or on-site) totaling 7.5 hours, compared to professors who taught in regular classes who spent on average 6.4 hours a week in office hours. Also, faculty members who taught online spent on average 4 hours a week communicating to students by email, compared to 2.6 hours a week for faculty members who did not teach online courses (Delucchi, 2000).

Along with email and office hours, instructors can do other things to facilitate online interactions. Following are 10 strategies for instructors to improve online interactions (Wegmann & McCauley, in press):

1. Prepare activities that encourage a participant stance. Use open-ended questions that inspire students to use their language in a variety of ways including genuine discussions (Dillon, 1994).
2. Build in participation points on assessment rubrics for online discussions and group work (Vrasidas, 2002).
3. Require students to contact each other periodically throughout the semester.
4. Call for students to respond to each other frequently on discussion boards.
5. Use a Virtual Instructor or Onsite facilitator, who could serve as a teaching assistant.
6. Propose office hours at various times, including online, morning, and evening.
7. Use "track changes" in a Word document to write comments on assignments and return them in a timely manner.
8. Use advanced organizers and charts whenever possible.
9. Use the technology that students have available – video, audio, or otherwise.
10. Contact every student at least once a week.

Further Research

Since online content analysis is still a relatively new area of research, future research should build on the results of this study by improving the theoretical and empirical base of existing analysis instruments. This study suggested a way to focus on the interactions within the asynchronous environment; however, future research needs to be conducted on content analysis of discussion-board entries across a whole course or program.

Similarly, since this study dealt with interactions which are shaped by

personality and learning styles (Gardner, 1993), future research needs to address the types of learners that might prosper in an online forum. Are successful discussion board interactions dependent on the type of learner? Certainly those who rely on inter and intrapersonal intelligences may find the online format does not allow for the “human dimension.” Or rather, does the online platform create a different type of interpersonal communication—computer-mediated, instead of face-to-face? Future research should inform us of this new type of computer-mediated interaction.

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Appendix: Rubric for Discussion-board Entries

Format For Discussions

Throughout the semester, you will be assigned to read specific chapters from your texts and then discuss them with your colleagues. Each chapter will require you to do THREE different types of postings. I call this the THREE R's:

#1 POSTING: RESPOND to the reading

#2 POSTING: REACT to your colleagues' first postings

#3 POSTING: REPLY to the questions and comments of your colleagues' responses to YOUR first postings.

#1 POSTING: RESPOND

As you read the assigned text, you will enter postings onto the discussion board on Blackboard. When you get to a part in the chapter that causes you to respond emotionally (aesthetic response...Rosenblatt), that inspires an idea that you might want to implement (efferent response...Rosenblatt), that helps clarify or expand past knowledge (schema), post these thoughts on the discussion board. Try to cite the *page number* in the text that corresponds to your comments. This makes it easy for your readers to locate, reread, and comment. The important thing is to write what you're thinking at the time you're reading whether it's all at one time or on different days—and let your group members know what you're doing.

#2 POSTING: REACT

These are your responses to your colleagues' postings. You'll push, extend, challenge, or stretch the ideas of your colleague. Within this response either (1) attach a document or (2) include material from a source other than our texts (include the citation). This extra information should help you support the point you're trying to make. And, end with a good question that makes the original writer think more deeply about the issue. The bottom line is that you want to engage your group in a discussion of ideas. You want to respond in such a way that the writer (and others) will want to keep throwing the issue around long after the due dates for discussion have passed.

NOTICE these features of a Reaction:

1. It speaks to a point made by a colleague.
2. It adds information—through information outside of our textbooks.
3. It makes references to what we've been learning and/or what we've learned in past courses.
4. It is a thorough, lengthy discussion.
5. It ends with a good question or two that pushes a person's thinking.

#3 POSTING: REPLY

Go back to the reactions from your peers to your initial response. Answer their questions with questions of your own. What are you still unsure about? What other issues arose after you reacted initially? Have you read anything since then that would support/disagree with your initial post?

Revised from and used by permission of Dr. Joyce McCauley, Sam Houston State University, Huntsville, TX., Handout RED 530 Foundations of Literacy, January, 2006.

TEACHING ONLINE COURSES: LESSONS LEARNED

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Abstract

This paper shares insights on course development by describing the process of developing on-line literacy courses using WebCT. Lessons learned are shared including how to plan for online instruction, how to decide what content can be in online courses, how to develop an online community, lessons learned related to logistics, and how to manage the time needed for online instruction.

Introduction

Many teachers are faced with looking for alternative forms of instruction in order to meet the needs of diverse student populations. One option is online instruction; however, there are many questions that need to be addressed for literacy educators to see this as a viable option. Research indicates that many faculty members are still hesitant to teach online (Jacobsen, 1998; Maguire, 2005). For example, 50 percent of faculty in a National Education Association survey conveyed negative or uncertain feelings towards distance learning (2000). We concur with McLean (2005) that technology holds great potential for enhancing teaching, but faculty must be willing and prepared to use it. In this paper, we shed light on the question—what does it take to offer on-line courses? By *on-line courses*, we mean those courses that are delivered using the internet as a medium of communication (Green, 2003; Maguire, 2005; Volery, 2000).

The most common methods of online instruction include some combination of two Internet-based protocols: e-mail, which allows individuals to send and receive personal messages; and the World Wide Web, which allows text, graphics, audio, and video to be displayed publicly or to groups with access privileges (Green, 2003). Green describes course management

software (CMS) or learning management systems (LMS) as a set of protocols and templates that allow an instructor with very little computer-programming ability to organize content, facilitate discussion questions, administer quizzes/tests, and manage grades using the World Wide Web. The most popular CMS or LMS products are Blackboard, WebCT, and Knowledge Form.

We used WebCT to offer three Reading Endorsement online graduate courses. WebCT is very user-friendly and, as asserted by Green (2003), enables anyone with little computer-programming ability to organize, edit, and upload content course materials such as the syllabus, formative and summative assessments, facilitate discussion questions, administer quizzes/tests, and manage grades using the World Wide Web. WebCT's hosting services allow you to get up and running quickly without dedicating staff to implementing, managing, and supporting your system. For more information see <http://www.webct.com>.

We relied on *asynchronous* methods of communication. This means we did not require class members to be at their computers at the same time for instruction to occur. Instead they participated and completed their assignments at different times. There are other possibilities that educators might find interesting to explore. For instance, use of *chat* technologies (Internet protocols that allow immediate transmission and receipt of text-based messages) as well as *audio* or *video conferencing*, which require all persons to participate at an appointed time and which accommodate live (*synchronous* or *real-time*) interactions (Berge, 1995; Card, 2000; Green, 2003).

Those who have examined online instruction agree that teacher educators need to understand and be able to discuss intelligently what the influence of online courses might be (Cavanaugh, 2005; Jacobsen, 1998; Maguire, 2005; McLean, 2005). We begin by describing our planning for teaching online. Then, we discuss course development suitable for online environments, grading, how to build a community of learners online, managing the logistics of online instruction, addressing technical problems, and the benefits of teaching online. We take you through the process involved in planning, implementing, monitoring, evaluating, and revising online courses, and share insights gained from our experiences.

Planning

As teacher educators, we found ourselves seriously considering the mechanics and instruction of online teaching by asking ourselves many questions such as:

- What is salient and worthwhile to students taking online classes?
- How best can content be translated from traditional mode to online?
- How do I balance the content across the semester?

- What assumptions do I have about online instruction?
- How do those assumptions influence my attitude towards online instruction?
- What are the student's backgrounds and learning needs?
- How fluently can they use technology?
- What are their learning styles?
- How can instruction be tailored to their needs?
- What format/structure should be used in online instruction?
- How will that format/structure look online?
- What instructional materials and resources will be relevant for online teaching?
- Do readings accurately capture what would have been said in face-to-face interaction?
- What assignments are appropriate?
- How many assignments?
- Do I have resource materials and readings?
- What technologies will I employ to facilitate instruction?
- How capable am I in using these technologies?
- How do I establish and maintain quality control?
- How much time am I willing to devote online?"

In our search for answers, we found that researchers have identified key areas to think about when planning online instruction. For instance, Chickering and Gamson (1994) reviewed fifty years of research on teaching and learning in higher education. Their research resulted in "Seven Principles of Good Practice for Undergraduate Education." In order to foster good learning good teaching should include: (a) interaction between faculty and students, (b) opportunity to develop collaboration and cooperation among students, (c) active learning, (d) timely feedback, (e) an emphasis on time management, (f) high expectations, and (g) different ways of learning. Yang and Cornelius (2005) noted these areas were important when deciding what to include: (a) providing background information for the course, topics on the unit, key concepts and readings for the course; (b) incorporating PowerPoint presentations, video lectures and demonstrations; (c) designing some activities or discussion questions which can trigger students' interest to explore the answer, which will ultimately foster students' critical thinking; and (d) requiring students to play roles in certain scenarios in online discussion.

The quality of instruction may have an inverse relationship with class size. Class size matters especially when it comes to grading and advisement. A group should not be so large that it hampers personal expression or produces an overabundance of postings to process. A small enough class can foster meaningful interactions among all of the participants; therefore, a class

size of fifteen to twenty-five students may be ideal for online learning. This size can provide enough diversity in learner background and experience to establish a solid base for large group interaction.

In developing online course plans, instructors must also analyze their own teaching styles first, and then analyze learner's characteristics (Ascough, 2002). Learner characteristics might include academic and professional backgrounds. It may not be possible to gather all the information before the online course begins, but a simple online questionnaire can help the instructor know more about students' learning styles. One type of questionnaire could be a course experience questionnaire, which not only can help the instructor to gain information about students, but can also improve the students' perception on the academic quality of the course. Richardson (2003) has suggested that incorporating various activities can successfully address all learning styles of the virtual student. Those activities could be one-alone, one-to-one, one-to-many, and many-to-many.

A key element in educating teachers is modeling. There is little direct opportunity for an instructor to effectively model classroom teaching in an online environment. With the reality that some things do not translate as well online, we have had to think through alternative ways of demonstrating. We have had to rely on other media such as audio and videotape to get a sense of what the teachers are doing in the field.

The planning stage was thus a stage where we brainstormed and searched for information about the range of possibilities for implementing online instruction. We have reflected upon and incorporated these ideas into our courses as you will, hopefully, see in the following discussion.

Course Development

Content refers to the theoretical concepts, research findings, paradigms, models, and other information covered in texts and course readings that provide the foundation for learning about techniques, methods, and approaches (Knapczyk, Frey, & Wall-Marencik, 2005). As in any teaching format in literacy education, web-based learning activities must be designed to cover the content students need to acquire and to give them opportunities to practice applying that content to real life situations. The key lies in how to translate theory into practice and how both theory and practice can inform each other.

An online course requires a radically different course syllabus that takes full advantage of the verbal and textual merger that a computer generated teaching reality creates (Green, 2003). Therefore, at the instructional design level, one of the challenges we faced was how to translate what was traditionally a face-to-face course and make it available online. We had to decide

and choose what was of most worth, and adjust assignments to fit online settings. This required constant revision to tailor content to student needs, fields of study, etc, hence our term “evolving syllabus.”

After deciding on what content to include in our online courses, we organized it into modules (see Appendix A). Each module focused on a topic or closely related topics such as *assessing word analysis and vocabulary* or *assessing comprehension and fluency*. Each of the three online courses we offered had a total of eight modules. We used course textbooks and printed material in combination with online lectures, assignments, and supplementary course materials. In addition, we scanned materials and saved them in portable document format (PDF). In order for the students to get a snapshot of how literacy educators conduct reading instruction, we included video clips of real classrooms for the students and asked them to make an appraisal of the videos. Each module included readings, activities, and assignments. The following is an example of an introductory assignment for an online clinic course that required tutoring:

Your first tutoring session should be designed to learn about your student. You may want to plan on playing a game, reading aloud a story or book, and completing an interest inventory. You can choose any one of the sample inventories, combine parts of any of them, or create your own appropriate to the student you are working with. It is not meant to be handed to the child to fill out. It should be completed orally in an informal conversation. You will want to record the student's answers so you can refer back to their interests, etc. as you plan your future tutoring sessions.

Once we finished developing the course content, we wrote the syllabus for each course providing a summary of the content, the course description, and course overview. As suggested by Pratt and Palloff (2003), the syllabi also included required texts and readings for the course, and specific class rules and policies (see Appendix B). We then went to WebCT and decided what online format to use. We decided to use modules (see a description in Appendix B). Each of the three courses we offered had eight modules. Each module was uploaded and left on WebCT for two weeks. In other words, every fortnight there was a new module for students—complete with readings, assignments and guiding questions. Please note that courses offered in the summer took a shorter time. The modules therefore stayed on WebCT for three to four days instead of two weeks. What might seemed to have been a downside of the module system was its unavailability to students who wanted to work ahead. We addressed this by providing tips for the next module to help them think ahead—some form of lead-into forthcoming assignments. Readings for all modules were also available. In general, our module

format helped students to focus more on those topics within each module. In addition, the WebCT Bulletin Board was not as dissonant as it would have been if students were allowed to work on different modules at the same time. From our experiences, uploading any course to WebCT required more hands-on, minds-on, and what we called “playing with it” to figure out how it worked. We found we had to have a willingness to learn on the job.

It is imperative for teacher educators to allow themselves sufficient set-up time when designing online courses. As noted by Ascough (2002), online education is not merely uploading teaching materials, receiving and sending email messages, and posting discussion topics onto the internet. One should be aware of limitations of the systems they and their students are using. We were aware of the constraints of WebCT, for instance, its lack of replying and copy to functions. Some of our students ran into problems related to technology systems available to them. For instance, if they tried to access information on WebCT from schools, their systems blocked access to some sites.

Another important point relates to specificity and clarity of instruction, procedures, and assignments. We saw the need to be very specific in our instructions in each of the modules and stated unambiguously what the student was expected to do, where s/he was supposed to post assignments, and when they were due (see Appendix B for an example of instructions).

At the start of the courses, we held face-to-face orientations to provide detailed information about each module that included a general description of what was expected of students, the components of the assignments, and a grading rubric. We explained to students basics of internet use, how WebCT would work, and technology requirements for online courses. Although students enrolling in our courses didn't have to be computer gurus to succeed, we expected them to have some basic technology skills such as word processing, using a networked computer and a Web browser and, most importantly, to have high speed internet connectivity.

In an *online* learning environment, there is greater difficulty communicating subtle social cues that are important to professional development. For this reason, we clearly outlined in all syllabi the importance of *Netiquette* (see appendix B). This means we reminded our students to consider what they posted and how it might be perceived by others in their class. In addition, we explained that humor was fine but could be misinterpreted without face-to-face cues.

We recognized the difficulties inherent in transforming a traditional course syllabus and structured to the conceptual classroom of an online class. Therefore, we developed an *evolving syllabus*, or a flexible and modifiable framework, in each course as we dealt with those difficulties. In addition, we incorporated student evaluations as an important aspect for syllabi and instructional revisions.

Grading

A variety of performance assessments should be established by instructors for quality online instruction (Yang & Cornelous, 2005). The assessments should be aligned with course objectives and subject aims and should enhance students' vocational and disciplinary skills (Morgan & O'Reilly, 1999). The goal is for students to complete learning activities in addition to mastering the material in the recommended textbooks. Therefore, we developed a wide range of activities which required students to, for instance, make Power Point presentations on chapters/topics, write weekly reflections of their learning experiences, and critique journal articles and reading programs. As indicated in the portion of the syllabus in Appendix B, students were expected to post a reflective summary of what they learned during a module as well as comment on their classmates' reflections. This activity was designed to help students review what they learn from the large group format and to have them explain what they find particularly meaningful and useful in the readings and other course material. We wanted them to make personal connections with course materials. In addition, we designed practice exercises to give students opportunities to try out concepts they learned before actually using them in teaching situations. The aim of these learning activities was to broaden the students' understanding of the course content by having them explain how they would apply theories, principles, and strategies in classroom situations.

In one of the online course we offered, students had to tutor a struggling reader. The goal of the tutoring was for students to demonstrate their ability to integrate and adapt best practices. The following is an example of an assignment in that course:

Keep a weekly log of your tutoring that includes your activities and instruction with your student as well as a reflection on how the session went, what you are observing, how the child is responding, etc. This log should be posted (weekly) to the bulletin board appropriate for the grade level of the student you are working with.

We strived to provide assessment that was authentic and distributive instead of summative. At the beginning of each semester, we graded every student's first assignment as satisfactory/unsatisfactory and gave feedback on revising. Later in the semester, we graded student discussion postings by giving each of them a module score using a rubric for evaluating such elements as the quality and thoughtfulness of comments, timeliness of responses, and number of postings made. Along with a module score, we gave individualized comments and suggestions.

We offered advisement and prompt attention to student questions and concerns in a number of ways including oral and written forms of communication. Furthermore, we provided our contact information on the syllabus and

strongly encouraged students to contact us for assistance and advice as often as they liked and/or as soon as they encountered any difficulty with technology or course content. We requested them to be as specific as possible with their concerns and questions because many of the nonverbal cues that students use in the classroom to show frustration, boredom, or confusion (such as a yawn or a look of bewilderment) are not possible in an online class. If they had an issue needing urgent attention, we recommended that they use WebCT mail function or bulletin board. This enabled us to know the problem was course-related. Besides, when they posed their questions within WebCT, they became more likely to receive immediate feedback from anyone in the class and not necessarily from us their instructors. We also encouraged group-oriented comments and the giving and receiving of peer feedback. In addition, we highlighted areas such as the desirable length of postings, response etiquette, number and type of questions to ask the use of conversational language and arranging responses into discussion threads, and exemplary peer models of posting techniques. From our experiences with online instruction, sometimes students were in a better position than an instructor to offer more realistic suggestions and ideas, provide everyday examples of best practices, and give more genuine social and emotional support. The issues of how to provide support, and when to intervene, remained a continual challenge for us. For instance, we often wondered whether or not we were giving adequate support, when we should have stepped in, and even whether or not we should have intervened. Sometimes we sensed the urgency to get things resolved and endeavored to address them as soon as was feasible. To us, timeliness and immediacy in responses and addressing issues were critical.

Since students were managing their own learning using the online information and materials, we expected them to be self-motivated, to have time management and organizational skills, and to spend as much time for study as they would in a classroom course. However, people learn in different ways (Yang & Cornelous, 2005), so we did not expect that all students to approach their studies in the same way, or in a way we prescribe.

We encouraged academic honesty and integrity in our online courses. Cheating, plagiarism, and integrity breaches were not tolerated. As noted by Yang and Cornelous (2005), ensuring academic honesty and integrity in online courses can be challenging for instructors. When presenting this paper at a past College Reading Association (CRA) conference, one participant raised the issue of academic honesty by posing the question, "How sure are you that it is the student, not her husband, or wife, posting, doing and submitting the assignment?" We acknowledge that there is no easy answer to questions such as the one posed by the CRA conference attendee. While many critics have suggested that there is no sure way to hold students accountable for academic dishonesty, Heberling (2002) concluded that while maintaining

academic integrity in the online instructional setting may be challenging, many strategies may be employed to detect and prevent plagiarism, such as reversing an Internet search, and tracking back to an original source.

Time management issues were critical when offering online instruction. Responding to students was often a time consuming venture for us. The sheer volume of written assignments that were uploaded to WebCT (given the asynchronous nature of our courses) demanded that we log into the system twice or more times per day. Fortunately for us, enlisting the help of students to provide peer response eased this task. We concur with Green (2003) who posits that the desirability of *anywhere, anytime* learning may not always mesh with the reality that an individual still needs somewhere and some time to accomplish the task. Our advice would thus be: when you plan to teach an online course, make sure you really do have the time to participate in it meaningfully.

We learned early on that the flexible nature of asynchronous learning often makes it an appealing prospect. Thus we concur again with Green (2003) who aptly advised that everyone participating in online learning must take care not to allow themselves to be dazzled by the hype that surrounded computing tools or the promise of *effortless* instruction. These sentiments are similar to those of Sellani and Harrington (2002) who discussed many of the unique challenges administrators and faculty faced when teaching online. Sellani and Harrington found that faculty complained that the online delivery was more labor-intensive in the amount of time to grade papers and respond to questions. The increased time commitment has also been found to be a major barrier to faculty participating in distance education (Berge et al., 2002; O'Quinn & Corry 2002; Schifter, 2000).

Building a Community of Learners

Research shows that learners will take more responsibility and ownership for their own and each others' learning when they have a sense of community with classmates (Knapczyk, Chapman, Rodes & Chung, 2001; Palloff & Pratt, 2000). They must feel comfortable with one another in asking and answering questions, giving personal examples, offering suggestions, expressing opinions and interacting in other ways (McDonald & Gibson, 1998; Northrup, 2001).

Learners especially need to reveal personal and professional information to give them visibility and identity, and to provide a foundation for interaction (Knapczyk, Frey, & Wall-Marencik, 2005). Accordingly, we designed an activity where students introduced themselves by posting information that would help their online classmates get to know them better. In addition, students were encouraged to elaborate on their responses by outlining their

professional background and indicating what they hoped to get out of the course and from their online classmates. We found out that after these initial postings, students readily shared a wealth of personal examples and anecdotes that seemed to advance their online relationships. We noted, for instance, that students quickly started referring to each other by first names, greeted one another, offered compliments on postings and showed empathy. Later in the courses when groups and teams established more cohesion and trust, these more “social” interactions generalized to course related activities. Students began to give pointed suggestions on assignments, noted contradictions, expressed opposing views, showed disagreement and used other approaches that advanced one another’s understanding of the material.

For one to build a community of learners, courses must be designed in such a way that there is a high degree of student-to-student interactions. This means adopting more learner-centered and constructivist approaches and providing activities that encourage co-construction of knowledge and learning from each other (Ascough 2002; Blake, 2000; Yang & Cornelous, 2005). Brown (2002) presents several tips for instructors to improve the impact of their online discussions, including:

(a) maintaining an informal tone in the online community built by online discussion, (b) relating online discussions to issues raised and happening in class, (c) structuring discussion topic, staying focused around a being solved problem, (d) defining roles for various discussants, such as “original proposer,” “idea extender,” “constructive critic,” “responder to critic,” or “consolidator,” (e) providing incentive for active participant in discussion by enhancing grade, (f) requesting backup for the points student have raised, and (g) keeping the discussion board to be a open and free speech platform (p. 9).

Brown states that successful implementation of these strategies should enormously improve the quality of online interaction.

Informed by recommendations such as those of Ascough (2002), Blake (2000), Brown (2002), and Yang and Cornelous (2005), we structured our activities and discussions to be collaborative and constructivist in nature. The Bulletin Board, served as an especially useful tool for students to share information, collaborate, and interact with other members of the class. The following is a quote from our syllabi which outlines what students need to do to build a community of learners:

Participation is absolutely essential. This class is intended to be interactive and how much we learn depends on the community we form in cyberspace. If a module has a discussion board related to readings, you will be expected to post at least twice to the bulletin board for the module. The postings should relate to the readings, be reflective, and

can include responses to the postings of the instructor, the assistant, or other students in the course. These postings must be substantive, state or support an issue, or add a new perspective to the discussion. Most modules will have guiding questions to help you think about our topic.

As exemplified in the quote above, we provided an arena for an interactive, deep, collaborative, and multidimensional thinking, and learning environment. In addition, we encouraged individual as well as both small-group response and large-group discussions which built student-to-student interactions as well as self-paced learning. Our prior experience indicates that teams work best when they have three to five members. Also, our students preferred when we assigned them to groups as opposed to choosing their own group members. In smaller groups, we noted students making multiple postings in activities that involved planning, organizing, analyzing, and critiquing of information unlike in whole class responses.

As noted earlier, we networked students with each other to help, advice, and support each other. In responding to other people's emails, they had the choice of replying to the person privately within WebCT or to post their views and comments on the Bulletin Board for all to access and read. We established communities of practice—learner/learner interaction, learner/faculty interaction, and learner/content interaction. We oversaw the interactions of several groups of learners and provided clarification, re-direction and other forms of feedback as needed. All these successes were largely possible with a careful interplay of instructor skills, high quality learning materials, user support, and suggestions from previous research.

Managing Logistics of On-Line Instruction and Addressing Technical Problems

There are obvious contributing consequences when one decides to go digital. In general, one might experience technological problems, a tough learning curve, the limits of learner appeal, the possible alienation of learners, and the risk of tutor overload (Yang & Cornelous, 2005). From our prior experiences, managing electronic course materials, student participation, student achievement, and course evaluations can be problematic and one must be constantly aware of management/coordination issues. We think, therefore, that it is necessary for teacher educators to not only seriously consider the positive ramifications but also the potential limitations resulting from using technology to implement learning activities.

To ensure the quality of online instruction, the qualification of the instructors should be a first consideration (Yang & Cornelous, 2005). One of the ways of doing this might be through apprenticeship learning with mentors or others who already have online courses. The importance of the insti-

tution in providing training in how to effectively teach online and to respect the decisions of faculty in deciding what are the most appropriate subjects or courses to teach via the online medium, cannot be emphasized enough. In addition, instructional design and development support is essential for faculty who do not have the time to develop and maintain online courses (Bonk, 2001). We concur with Deubel's (2003) suggestion that instructors read literature about online learning environments first, and then get trained to use required technology, and finally seek assistance from experienced instructors when needed. In addition, we support Volery's (2000) advice to educators to upgrade their technical skills in order to keep abreast of technological developments. Workshops and seminars (whether on-campus or taken online) might be useful in achieving this. Apart from reading literature on online instruction, we attended several on-campus WebCT workshops and learned useful tips for troubleshooting.

There were other ways in which we managed our online courses. We checked our WebCT sites two or more times daily to ensure that things were running smoothly. Our priority was guaranteed student accessibility to course resources and materials. After uploading documents, we logged in as students (after setting up a mock student log-in) to find out if they could access all information. From our experience and as suggested by Cuellar (2002), educators should know how to design interactive activities and course syllabi, how to operate the learning platform, and troubleshoot problems online learners may encounter. This requires total commitment to online management and to spending an enormous amount of time doing this. According to Bonk (2001), 62% of faculty respondents indicated that "the main obstacle to using the web in teaching was the preparation time required" (p. 8). Time is also considered to be an administrative issue because of the institution's ability to offer release time for development and maintenance of online courses.

One other thing we did was include in the syllabus was an example of WebCT helplets to familiarize students with alternatives they had to solve problems. We set up mid- and end-of semester evaluations and used this feedback to modify our evolving syllabi. These actions helped us ensure that students quickly became comfortable with using WebCT and having online discussions with their classmates and instructor.

As a practical matter, the perceived lack of technical support and training is one of the primary reasons faculty members elect not to engage in technology initiatives (Olcott & Wright, 1995). Fortunately, we have dedicated technical staff who are able to assist with program specific technical issues. Other solutions include having good connectivity (high speed wireless capabilities). We would recommend use of laptops and reiterate the hands-on, minds-on, playing with it strategy.

Benefits

Elements of online instruction are attractive to all concerned: teachers, administrators, course instructors, and students who view themselves as having something substantial to gain (Green, 2003). We discuss below what has been beneficial for us as teacher educators, and include quotes from students who have enrolled in our classes to further illustrate the benefits of online instruction for them.

For Teacher Educators

Research has indicated technology can lead to the development of new ideas and diversification of academic programming and that online instruction is a viable alternative form of instruction (Maguire, 2005). The time flexibility of a distance-learning situation is particularly attractive. Online courses can be managed from almost anywhere in the world and as Shank (2005) puts it, one can literally manage the course in their pajamas or from the confines of private boat or cabin in the mountains. Maguire stated that teaching online provided optimal working conditions for instructors.

Our theoretical orientation has expanded somewhat as we view knowledge as co-constructivist in nature. We consider our instruction inquiry-based where students explore a topic or issue from a range of perspectives. Adopting online instruction has also required a letting go of some of our beliefs about teaching and learning. We have learned more from our students through their posts.

Opting for online instruction necessitates role shifts and a different focus of the instructor (Murihead, 2000; Zheng & Smaldino, 2003) and we have experienced these changes. The primary role often shifts to facilitating and moderating learning, rather than being the primary source of information (Ascough, 2002; Yang & Cornelius, 2005). We found this to be true in our experiences. We encouraged cooperative learning among the students, suggested conversational techniques, modeled posting and interaction formats, and used other approaches to encourage student ownership in the learning activities. The goal was to let students take charge and assume more responsibility for their own learning. We deliberately stepped back from discussions and let the students take charge of the interactions in response to assignment directions and classmates' postings. As advocated by Kettner-Polley (1999) and Yang and Cornelius we endeavored to select and filter information for student consideration, ask probing and thought-provoking questions to invite responses and critical thinking, and to further promote a learner-centered approach. For example, we might say, "Earlier this week, (name) discussed the use of leveled books in her school. What is the practice in your school?" Thus we moderated the flow of discussions and encouraged further interaction when it is needed. The end product was usually a well-considered discussion.

We have also found that students quickly take over responsibility for discussing ideas and asked and answered questions of one another rather than the instructor. However, we still closely monitored interaction throughout the course to clarify misunderstandings and direct discussions in productive ways. From our experiences, it was not unusual for an instructor to make only one or two postings in a class discussion toward the end of the module when students were showing a lot of independence in an activity and meeting its objectives.

For Students

Students had convenient access to the courses from almost anywhere in the world. Furthermore, online courses were a positive alternative to the travel required to attend a university class. Students who have taken our online courses have mentioned how they fit into their schedules and unique needs—family, academic, or work related.

We viewed our WebCT courses as a place for formal and informal online learning. WebCT made it possible for students to learn from each other. However, with increased freedom and flexibility came responsibility. Without the structure of regular class meetings and because students were not bound by location and time, it was up to the students to pace themselves and keep up with assignments, integrate and synthesize what others have posted, as well as post their own discussions or respond to what was posted. Knapczyk, Frey, and Wall-Marencik (2005) noted that since web discussions could proceed for days or longer, learners also had the opportunity to review the responses of their classmates, ask for clarification of ideas, consider differing viewpoints, and reformulate their own responses if they wished. This concurs with Bodzin and Park (2000) who posited that web conferencing contributed to student understanding of concepts and interactions with classmates and to their ability to reflect more deeply on issues and ideas. Online education can also promote students' critical thinking skills, deep learning, collaborative learning, and problem-solving skills (Ascough, 2002).

Online learning is an opportunity to use technology more innovatively and to enhance course quality. Online courses have allowed us to make presentation and support materials available to students at all times. We encourage students to post lesson plans, discuss strategies that are working for them, and post resources (e.g. websites, book titles) they have found helpful. Students have access to online resources generated by their class during and after the courses.

Online education is widely accepted as student-centered education (Yang & Cornelous, 2005). Through the internet, students have access to high quality *online* professional development opportunities beyond what a local district is able to offer. (Web-Based Education Commission, 2000). Online instruc-

tion offers self-regulated learning and goal setting, self monitoring, self-evaluation, locus of control and persistence at task. They learn at their own pace and at their own convenience set their own goals and targets. The courses allow students more time to prepare a response to a set of questions. Wade, Niederhauser, Cannon, and Long (2001) stated that in a conventional class, instructor questions are often not fully answered because learners do not have sufficient time to frame a thoughtful response. As a result, their answers are often spontaneous, shallow, and incomplete. By comparison, learners online have time to read over an activity, think through an appropriate answer, prepare a response, and review and edit it before posting it to the discussion network (Knapczyk, Frey, & Wall-Marencik, 2005; Harasim, 1990). Three students commented,

“I always enjoy reading the discussions and experiences and ideas that are shared through these online classes.”

“One great thing about online classes is that you can read everyone’s postings and ideas whereas in a face-to-face class, some of the conversations would be lost.”

“I think the benefit of this online class is that we all get to share ideas. I don’t think we could do it this extensively in a regular setting.”

The courses we offered gave opportunities for collaboration. We designed assignments with a collaborative aspect and enabled students to choose who they want to collaborate with. Sometimes we arranged learners into groups and had them work together on assigned tasks, projects, brainstorming activities and application exercises. Bonk, Ehman, Hixon, and Yamagata-Lynch (2002) researching the use of web conferencing found that they can serve as a collaborative tool to allow teachers from widely disbursed communities to share common interests and concerns and engage in joint problem solving on real life classroom situations.

Many students report that they actually learn more in online classes than in face-to-face classes and find the experience more rewarding. For instance, one student said,

“One great thing about these online classes is getting to know people despite the lack of weekly face to face meetings. I love learning about reading and sharing ideas and strategies with others!”

Another student said,

“I loved the ability to read and interact with my other classmates via this WebCT format. Thanks for the opportunity to enter into the classroom and learn from all of the teachers in this class, it has been priceless! I have gained such a better understanding of what literacy is and how it can be achieved.”

Conclusions

This paper was designed to inform teacher educators who are new to online instruction or are just considering this format. Issues related to planning, content appropriate for an online environment, grading, building a community of learners, managing logistics of online instruction, how to address technical problems, and benefits of online instruction were addressed. The paper also showed how and where to begin, and how to avoid some pitfalls of online instruction.

High quality online instruction encourages discovery, integration, application, and practices (Yang & Cornelous, 2005). Instructors need to discover students' learning preferences, integrate technology tools, apply appropriate instructional techniques, put them all into practices, and generate the most suitable method for individuals. Instructors must use an appropriate pedagogical framework and course design strategy (Card, 2000) to take full advantage of online instruction. Both faculty and administrators face the significant challenge of retooling their minds to fit the varied media involved in technology integration. Technology integration cannot be performed unconsciously, but must be planned, designed, constructed, tested and evaluated with full awareness of our goals and means (McLean, 2005).

We believe we have experienced a measure of success in delivering instruction online mainly because we have continued to reflect upon what we do to inform our instruction. Accordingly, we have seen online teaching as a recursive process involving planning, building, reflecting and improving upon our practices. Furthermore, we know we have succeeded based on student evaluations, students' interest in continuing their studies in these settings, and students' reported successes implementing the course content into their own professional practices and personal lives. We encourage teacher educators to carefully examine online instruction as a promising approach.

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On-line Journals to consider

Journal for Asynchronous Learning, *Online Journal of Distance Learning Administration*, the *American Journal of Distance Education*, and the Sloan Consortium.

Appendix A. Portion of Syllabus

READ 6420: Literacy Development and Instruction in Early Childhood Summer 2006 (Online)

Required Texts:

- Barone, D. M., & Morrow, L. M. (2003). *Literacy and young children: Research-based practices*. New York: Guilford Press.
- Taberski, S. (2000). *On solid ground: Strategies for teaching reading K-3*. Portsmouth, NH: Heinemann.

Course Overview:

In this course you will have opportunities to:

- Explore your own literacy
- Read and respond to professional literature
- Be a co-learner in acquiring knowledge of early reading development K-3
- Participate in professional development activities

Course Prerequisites:

- Reasonable proficiency with computer, including using email and word processing programs
- UGA MyID
- Frequent and reliable access to computer in order to complete the course to satisfaction of the instructor. If you lack access to a computer with a high speed internet connection, it is highly recommended that you defer taking this course until you have access or take the on-campus section.

Course Requirements:

- Completion of 8 Modules (10 points each)
Program/Materials Review (15 points)
Final Reflection (5 points)

Modules

This course is divided into eight modules. You have approximately 3 or 4 days to complete each module. Please be sure to keep checking the WebCT calendar for due dates, when a module begins and ends, etc. A module will be closed at nine p.m. of the final day. *No assignments will be accepted after the module closes.*

Each module will have readings and assignments. Participation is absolutely essential. This class is intended to be interactive and how much we learn depends on the community we form in cyberspace. *You will be expected to post at least twice to the bulletin board for each module related to the textbook readings.* The postings should relate to the readings, be reflective, and can include responses to the postings of the instructor, the assistant, or other students in the course. These postings must be substantive, state or support an issue, or add a new perspective to the discussion. Each module will have guiding questions to help you think about our topic.

Use good “netiquette”:

- Check the discussion frequently so that your responses are timely and on the topic
- Focus on one subject per message and use titles that are self-explanatory

- While disagreement is fine, avoid judgment comments that may be taken personally
- Include quotes, references, page numbers, and sources whenever possible
- Vague or general comments may be interpreted as a sign that you haven't read the material.
- Humor is fine but can be misinterpreted without face-to-face cues.

Appendix B. Course Content Divided into Modules

DATE	MODULE	READINGS*
January 5	<i>Orientation</i> Overview of Course; Interest Inventories	
Jan. 9-18	1-QRI	L&C sections 1-5 M&S Ch 3, 9
Jan. 19-Feb. 1	2-Assessing Emergent Readers; Observation Survey; Running Records	R&P Ch 2, 3 M&S Ch 5
Feb. 2-15	3-Formal/Informal Tests	M&S Ch 1, 2, 3, 10
Feb. 16-March 1	4-Assessing Word Analysis and Vocabulary	M&S Ch 6
March 2-22	5-Assessing Comprehension and Fluency	M&S Ch 4, 7
March 13-17	<i>Spring Break</i>	
March 23-April 5	6-Keeping Anecdotal Records, Checklists, Observation Notes	M&S Ch 8 M&S Ch 8R&P Ch13
April 6-19	7-Matching Student Needs with Instructional Techniques I	R&P Ch 4, 5, 6, 7
April 20-May 1	8-Matching Student Needs with Instructional Techniques II	R&P Ch 8, 9, 11, 12
May 5	<i>Electronic Portfolio Due</i>	
May 5	<i>Course Evaluation</i>	

USING TEXT-TO-SPEECH SOFTWARE WITH STRUGGLING READERS

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Abstract

Text-to-speech (TTS) software enables computers to read electronic text files aloud using phonemic voice synthesis. Reading aloud to students can provide a scaffolded experience that results in successful comprehension, and TTS software is readily available. Yet observation of classrooms indicates very little use of this tool for computer-based reading despite its record of positive research results and teacher evaluations. Successful use appears to depend on classroom organizational patterns, teacher planning for its use, and teacher commitment to monitoring.

Text-to-speech (TTS) software offers an important potential avenue for scaffolding reading experiences for struggling readers (Leong, 1995; Reitsma, 1988). This software (also called *electronic readers, assistive reading software, reading machines, screen readers, computer text readers, or e-readers*) enables computers to read electronic text files aloud using phonemic voice synthesis. For example, a struggling reader interested in learning about recent events in the Middle East might find a website that has an article on the topic. If the article is written at a readability level above the student's independent level, he or she can then use TTS software to have the article read aloud in order to aid comprehension and learning. The more sophisticated TTS programs include scanning capabilities. In using such programs, students place a printed page of text on a personal computer scanner which then sends the scanned information to the voice synthesis software for reading aloud.

The purpose of this article is to survey research literature on the potential of TTS software for use with struggling readers whose listening levels of comprehension typically exceed their reading levels. A connection between

reading aloud to students and use of TTS is suggested. Then the limited number of research studies pertaining to this new technology is surveyed, with particular attention to issues related to struggling readers. Finally, several practical conclusions about classroom implementation are drawn.

Descriptions of Text-to-Speech Software

TTS software is widely available and ranges widely in cost. Several simple TTS programs are available free for downloading. Other moderately priced programs offer ease-of-use advantages, as well as improved quality of voice synthesis. Top-of-the-line software adds scanning capabilities, as well as writing and study aids. Also, less expensive software sounds somewhat robotic when text is read, while more expensive software includes sophisticated, almost human-sounding voice patterns. Balajthy (2003) has provided a detailed compilation of available TTS software, but up-to-date lists are widely available at adaptive technology websites such as the University of Toronto's Adaptive Technology Resource Center (www.utoronto.ca/atrc/reference/tech/textspeech.html).

A reading teacher who wishes to experiment with TTS software might start with free software, such as ReadPlease 2003 (www.readplease.com). Other similar software includes HELP Read, (www.pixi.com/~reader1/allbrowser) which is the latest version of an easy-to-use TTS program that can be quickly downloaded and used immediately. Operation of the program is simple. Students locate a piece of text from an electronic file or a website, then copy and paste it into the ReadPlease textbox. They may choose from several font sizes to display the text, from several different voice styles, both male and female, and from a variety of reading speeds. When the play button is clicked, the text is read aloud and highlighted word by word.

Teachers who have decided to make TTS an integral part of their work with struggling readers will probably want to be equipped with a more comprehensive software system, such as AspireREADER (www.aequustechologies.com). This more sophisticated software offers similar features to that provided in the less expensive TTS programs, as well as additional features such as less robotic, more natural sounding synthesized speech. AspireREADER has three modules. The Web Browser module allows struggling readers to have web pages read aloud to them as the text being read is highlighted on the computer screen. It also provides the options of magnifying the web pages for better vision and of changing the background and font color for increased clarity. The Editor module reads text files aloud, including word processing documents, and also functions as a talking word processor for students' writing experiences. The Book Player module reads digitized books from a variety of electronic book formats. AspireREADER

also has an online notetaking component for students to use for recording important points. A 30-day free trial version can be downloaded for examination.

For classrooms in which teachers want text-to-speech to play a central role, high-end TTS software provides opportunities for maximizing scaffolding of struggling readers. For example, The Kurzweil 3000 (www.kurweil.edu.com) provides the same capabilities as lower-end and mid-range products, but it also offers additional enhancements that allow it to take on a more comprehensive instructional role. Printed text can be scanned for reading aloud and PDF files can also be read. Words in the text can be selected and, with a click on an icon in the toolbar, a definition, synonym, and/or syllabication is provided. The talking word processor has a spell-checker, and the web reading tool has a component that allows students to search Internet resources for electronic books. The Kurzweil website includes an extensive demonstration of the software and an online order form for a 30-day free trial CD.

To support learning, students and teachers can place electronic sticky-notes, footnotes, or sidebar text notes on the screen page. Highlighting of text can be provided in a variety of colors, and the highlighted text can be exported to a separate notes file for studying. The program also has a test-creation and test-taking component that simplifies the construction of online fill-in-the-blanks and multiple choice tests.

The value of reading aloud to students is widely recognized by the general public, curriculum experts, and researchers. Clay (2001) noted that reading aloud to preschoolers had captured the popular imagination and that family reading time was widely promoted. Balajthy (2003) identified several teaching strategies involving reading aloud that were designed to help struggling readers, including the Neurological Impress Method (Heckelman, 1969), Echo Reading (Anderson, 1981), and Comprehension for Decoding (Lipa, 1990). Morrow and Gambrell (2000) surveyed the research literature to conclude that children who are read to daily over long periods of time improve in decoding, vocabulary and comprehension.

Instructors of struggling readers have long made use of audio recordings to support the reading process. TTS software is widely available in remedial reading and special education classrooms (Michaels, Prezant, Morabito, & Jackson, 2002). The author's personal observations in school settings, however, suggest that, like many available educational computing applications, TTS software is infrequently used.

What Is the Potential of Text-to-Speech Software?

Published teacher reports on the use of TTS are consistently positive. Howard (2004) used scanning and TTS to make talking books on science topics and concluded that “my first graders still retained the knowledge they gained long after their reading” (p. 29). Seegers (2001) used TTS with an intermediate grade class of special education children with learning and emotional disabilities. She emphasized the importance of using TTS to help her children with research and literature “that they could not otherwise read” (p. 39).

In an informal study focused on teaching of older students, Michaels et al. (2002) surveyed college instructors who work with disabled students. The instructors rated the usefulness of TTS as 4.17 on a 5 point scale.

Empirical studies on TTS indicate that the technology has potential to improve student achievement with some students. In a survey of the research, Balajthy (2003) noted that positive effects of the software appear to depend on characteristics of students with whom it is used. For example, when text is written at students’ independent reading levels, where comprehension is already excellent, there is no need for TTS. When students are already positively engaged in school tasks, the additional motivational power of TTS may not add much in the way of enhancing achievement. Positive results have also been found with first graders (Reitsma, 1988), college students with attentional difficulties (Hecker, Burns, Elkind, Elkind & Katz, 2002), and struggling readers (Leong, 1995; Montali & Lewandowski, 1996; Wise & Olson, 1994).

As with much educational research, results of TTS appear to be largely dependent on individual differences. Disseldorp and Chambers (2002) investigated the effects of TTS on college students with attention deficit disorder. They found overall positive effects on attention to text and on ability to read for extended periods of time. For some students with poor comprehension, the TTS software helped improve comprehension, though there was no overall improvement among the subjects. It makes sense that less proficient readers will be helped more by TTS than better readers. Disseldorp and Chambers found that poorer readers benefited more than better readers.

Higgins and Raskind (2005) investigated whether a limited component of more sophisticated TTS software, the pronunciation aloud of unknown words and provision of syllabication and definition, would enhance reading comprehension of learning disabled students. Rather than using a comprehensive TTS package, they used the Reading Pen (Wizcom Technologies, www.wizcomtech.com), a device which students scan across unknown words to obtain oral pronunciations, syllabication, and definition. Students using the Reading Pen scored an average post reading comprehension raw score of 23, while the comparison group without the device scored only 15, a statistically significant difference.

Another issue related to use of TTS software is related to student age. It is one thing to use TTS to help first graders identify unfamiliar sight words, but another to use it to help college students read and learn from a psychology textbook. Elkind (1998) carried out a reading rate study with community college students and found that slower readers whose rate of reading is less than 176 words per minute were helped by TTS software, but faster readers were slowed down. Some students' comprehension was degraded when using TTS because of difficulty integrating speech with the visual presentation of text. Wattenberg's (2004) assessment of use of TTS with learning disabled college students was generally positive, but his recommendations were more guarded. He noted that for college students the learning curve for using TTS effectively varied from a few weeks to several months. Results showed that a coordinated vocabulary development program is essential. Results also suggested that the most motivational benefits are seen when the speed of the TTS presentation is increased.

Conclusions

So what conclusions can be drawn from the enthusiastic published reports by teachers using TTS software in their classrooms, the generally positive but somewhat mixed results of researchers, and the rather infrequent use of the available TTS software in actual observed classrooms? First, as with all use of educational technology, some characteristics of traditional classroom organization and management dictate against its effectiveness. Many classrooms are set up for a particular style of teaching, with the teacher in front of the classroom leading students in large group direct instruction. There is little or no room for technology in such classrooms, other than use of overhead projectors or PowerPoint presentations to support lecture and direct instruction. If classroom instruction is dominated by teacher-led large or small group activities, or by independent workbook-like reinforcement exercises as in many instructional settings for struggling readers, there is little time left over for TTS-scaffolded independent reading.

Classroom use of TTS software is also dependent on the content of classroom instruction. If independent reading time is dominated by reading currently popular children's or teen novels that are more readily available as audio readings than in electronic text format, TTS will not fit in. The higher quality of audio recordings makes their use preferable for these purposes, and the copyrighted status of those books usually eliminates any possibility that they will be available in electronic text format. A teacher can use TTS to support reading of science or social studies websites for research projects or for current events articles in news websites. Many historical documents are online in electronic text format, as is classic literature.

Importantly, the varying findings concerning the effectiveness of TTS suggests that teachers should carefully monitor students who use the software. Preliminary indications from the research suggest that poorer readers and attention deficit readers benefit the most from TTS applications. Struggling readers are helped by oral pronunciation support of the word recognition process. The oral reading of text apparently helps with reader engagement, but more advanced readers may actually find their comprehension hampered by unnecessary and distracting speech support.

Research clearly indicates that not all struggling students benefit from TTS support. Intervention is required when teachers find that individual students are not benefiting from TTS instruction. Perhaps the students need some guidance as to more effective operation of the software. Even though TTS software is fairly easy to use in comparison to some other types of software, research implies that significant experience is necessary before some students are able to work with it independently.

In addition to potential problems with basic software operation, students may not be appropriately using the learning aids provided by TTS software. For example, they may need supervision to take maximum advantage of word recognition aids that are included in some of the software packages. Other students may have difficulty understanding the machine-like quality of the phonemic voice synthesis used in the software. Research suggests that some students require significant experience with listening to the computer voice before they can read comfortably with it. Student difficulties during scaffolded reading experiences may not be related to TTS, which is a point that requires close monitoring by the teacher. Struggling students may instead be dealing with reading selections that are inappropriate in terms of interest or readability level.

Finally, effectiveness of TTS will vary according to the quality of its implementation in the classroom. Students and teachers need to be provided with the time necessary to learn the software operation. Hecker et al. (2002) found that for college students one to three hours of training is necessary to reach fluency in using the software, but unless frequently used, fluency is lost. Also, prior to introducing the software to students, teachers should identify the specific components of their curricula that will allow use of the technology, including actual tentative scheduling of its use with individual students. Too often, expensive software is purchased without any real plans as to how it will fit into the curriculum. The software ends up being underused.

As in any educational innovation, the use of TTS software to help struggling readers requires careful planning and implementation by committed teachers. Its use is certainly not the solution for all reading difficulties, but its application in targeted ways offers potentially important scaffolded instruction for reading and comprehension.

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