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ABSTRACT

The mission of the Association for Direct Instruction is to promote the improvement of effective educational methods. This journal, "Direct Instruction News," is their publication. The Spring 2002 issue (Volume 2, Number 1) contains the following articles: "Same? Different? Both Same and Different" (Sara G. Tarver); "Cookie Cutter Curricula" (Bob Dixon); Responses to Article by Alan Borsuk; "Scores Soar at Siefert School with Aid of Structured Lessons: What's That Slapping Sound?" (Alan J. Borsuk); "Alex's Story" (Gary Shmerler and Karen Shmerler); "Does Direct Instruction in Phonics Benefit Deaf Students? If So, How?" (Beverly Trezek); and "Myth versus Science in Educational Systems" (Charles Baxter). The Fall 2002 (Volume 2, Number 2) issues contains these articles: "DI Successes Despite the Obstacles" (Sara G. Tarver); "Reading First, Phonics, Phonemic Awareness, and the Analysis of Content" (Bob Dixon); "Eshelman Avenue Elementary: A Profile of Success" (Kip Orloff and Therese Snyder); "When Direct Instruction 'Doesn't Work'" (Carrie Amberge); "Rhetoric and Revolution: Kenneth Goodman's 'Psycholinguistic Guessing Game'" (Martin A. Kozloff); "Three-Cueing System: Help or Hindrance?" (Kerry Hempenstall); and "Statement to the MPS School Board" (Mark C. Schug). (NKA)

Direct Instruction News: Effective School Practices, 2002.

Direct Instruction News

ADI Effective School Practices

SARA G. TARVER, Editor, University of Wisconsin, Madison

Same? Different? Both Same and Different!

In his "View From Askance" column in this issue of *DI News*, Bob Dixon reveals the fallacies in the myth that DI (the "cookie cutter") produces students (the "cookies") who are all the same. To put that old myth another way, DI stifles teachers' creativity (by providing them with a cookie cutter) and students' individuality (by making them identical products of the cookie cutter). Bob explains that DI does treat students as though they are the *same in some ways* but also treats them as *different in other ways.*

Students are the same in that they all learn if provided with a well designed curriculum and a teacher who presents the lessons effectively. Students differ in what they have learned prior to their first exposure to a DI curriculum (let's call that prior learning *prerequisite skills and knowledge*, not *readiness*). That's why we give placement tests to determine the *different* starting points for *different* students. Students differ also in rate of learning and rate of progression through a curriculum. That's why we emphasize ongoing assessment of individual progress and *flexible* homogeneous grouping.

In short, learners must pay attention to both sameness and difference. Even the simplest discriminations require attention to both. The young child who is asked to "put all the red blocks in one pile" must pay attention to sameness of color (what IS red) and, at the same time, pay attention to differences of color (what IS NOT red). Sameness and difference are two sides of the same coin. Fortunately, we can help children learn by structuring tasks to communicate critical samenesses and differences. DI curricula are designed to do just that. This particular aspect of DI is most apparent in the DI language programs and Level A of the *Corrective Reading Comprehension* program in the lessons in which children are taught that things are the same in some ways yet different in others. Too bad some educators never learned those basic same/different lessons.

Schools, like individual students, also share important samenesses or similarities even though they differ along many dimensions. Schools that implement DI with fidelity are the same in this way: their students' academic achievement improves tremendously. To be sure, schools may differ in level of academic achievement before and after DI implementations. They may also require different DI curricula with different emphases. For example, teachers in low performing schools often spend more time on DI language instruction, relative to DI reading instruction, in kindergarten and/or first grade, whereas teachers in high performing schools are likely to spend more time on DI reading instruction. Also, low performing schools may choose to implement a particular DI reading program (e.g., *Reading Mastery*) while high performing schools may choose to implement a different DI reading program (e.g., *Horizons*).

The body of evidence supporting the claim that DI implementations lead to improvements in academic achievement continues to grow. Highlighted in this issue of *DI News* are two reprints of *Milwaukee Journal Sentinel* (*MJS*) articles that report the success stories of Clarke Street Elementary School and Siefert Elementary School in Milwaukee.

Both are inner city schools in high poverty neighborhoods. As reported in the *MJS* articles, authored by Alan Borsuk, the academic gains of both

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SPRING 2002, Volume 2, Number 1

In this issue

The DI News is published semiannually by the Association for Direct Instruction. The mission of the Association for Direct Instruction, as stated in the by-laws, is to promote the improvement of effective educational methods.

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Contribute to DI News:

DI News provides practitioners, ADI members, the DI community, and those new to DI, with stories of successful implementations of DI, reports of ADI awards, tips regarding the effective delivery of DI, articles focused on particular types of instruction, reprints of articles on timely topics, and position papers that address current issues. *The News'* focus is to provide newsworthy events that help us reach the goals of teaching children more effectively and efficiently and communicating that a powerful technology for teaching exists but is not being utilized in most American schools. Readers are invited to contribute personal accounts of success as well as relevant topics deemed useful to the DI community. General areas of submission follow:

From the field: Submit letters describing your thrills and frustrations, problems and successes, and so on. A number of experts are available who may be able to offer helpful solutions and recommendations to persons seeking advice.

News: Report news of interest to ADI's members.

Success stories: Send your stories about successful instruction. These can be short, anecdotal pieces.

Perspectives: Submit critiques and perspective essays about a theme of current interest, such as: school restructuring, the ungraded classroom, cooperative learning, site-based management, learning styles, heterogeneous grouping, Regular Ed Initiative and the law, and so on.

Book notes: Review a book of interest to members.

New products: Descriptions of new products that are available are welcome. Send the description with a sample of the product or a research report validating its effectiveness. Space will be given only to products that have been field-tested and empirically validated.

Tips for teachers: Practical, short products that a teacher can copy and use immediately. This might be advice for solving a specific but pervasive problem, a data-keeping form, a single format that would successfully teach something meaningful and impress teachers with the effectiveness and cleverness of Direct Instruction.

Submission Format: Send an electronic copy with a hard copy of the manuscript. Indicate the name of the word-processing program you use. Save drawings and figures in separate files. Include an address and email address for each author.

Illustrations and Figures: Please send drawings or figures in a camera-ready form, even though you may also include them in electronic form.

Completed manuscripts should be sent to:

Amy Griffin
ADI Publications
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Acknowledgement of receipt of the manuscript will be sent by email. Articles are initially screened by the editors for placement in the correct ADI publication. If appropriate, the article will be sent out for review by peers in the field. These reviewers may recommend acceptance as is, revision without further review, revision with a subsequent review, or rejection. The author is usually notified about the status of the article within a 6- to 8-week period. If the article is published, the author will receive five complimentary copies of the issue in which his or her article appears.

Same? Different?...
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schools are remarkable. To expand upon the information provided in Borsuk's article, we have included a table showing percentage of students scoring at proficiency or advanced levels on the Wisconsin Knowledge and Concepts Examination (Grade 4) in 1997, (prior to DI implementation) 1999, 2000, and 2001 (after DI implementation). As the table shows for Reading, the percentages increased by 46, 49, and 50 points for Clarke Street and 32, 47, and 46 points for Siefert. For Language, the percentages increased by 61, 71, and 71 points for Clarke and 47, 54, and 62 points for Siefert. For Social Studies, percentages increased by 66, 70, and 63 points for Clarke and 48, 55, and 52 points for Siefert. Obviously, Clarke and Siefert are the same in one way: Both made tremendous improvements in Reading, Language, and Social Studies after implementing DI. Congratulations to Clarke and Siefert (whose Principal, Sarah Martin-Elam was recipient of a 2000 Excellence in Education award from ADI) for outstanding accomplishments!

It's great to see DI getting some good press in Wisconsin these days (goodness knows it's long overdue). But even the good press usually contains some of the same old not-good stuff. And Alan Borsuk's *MJS* article about Clarke Elementary is an example of the good being contaminated with the not-good, for the sake of "balance" I suppose. David Ziffer and John Shewmaker, two frequent contributors to the DI listserv, wrote letters to Borsuk objecting to his inclusion of invalid criticisms of DI (the "not-good"). Apparently Borsuk chose not to publish the Ziffer and Shewmaker letters for they have not appeared in *MJS*. However, I think those letters will be of interest to readers of *DI News* and, as editor, I made the decision to publish them in this issue. They follow Borsuk's article about Clarke.

Also reprinted in this issue is a *Baltimore Sun* article that reports the tremendous turnaround of City Springs Elementary in Baltimore, Maryland. Under the direction of Principal Bernice E. Whelchel (recipient of a 2001 Excellence in Education award from ADI), the school has made gains sufficient to get it removed from the state's list of low performing schools that are in danger of takeover by the state. It is one of only four schools ever to have been removed from that list. City Spring's percentage of children performing satisfactorily on the Maryland Student Performance Assessment Program changed from 6.5% in 1996–97 (before DI implementation) to 42.4% in 2001. That 42.4% figure is considerably above the city average of 22.5% and just below the state average. Once again, hats off to Bernice and the City Springs staff!

It should come as no surprise to anyone that a key factor in the success of City Springs and other Baltimore schools is the teacher training. Getting research-based teaching practices into the hands (and minds) of large numbers of teachers is a major challenge of the day. In response to this challenge, Melissa Hayden and Muriel Berkeley, both of whom have played key roles in the Baltimore Curriculum Project, developed an on-line course and field tested it with 23 teachers from inner city Baltimore. As you will see when you read their article in this issue, the results are very encouraging. Great work, Melissa and Muriel!

DI success stories continue to mount for individual students also, many of whom have disabilities. One heart-warming story is that of Alex, reported by parents Gary and Karen Shmerler in this issue. This is a story of how a charter school that uses DI is helping Alex to learn like other children despite significant handicaps.

I find it particularly amazing that DI has been used successfully with deaf and hard-of-hearing students. The fall, 2001, issue of *DI News* contained a report of a study in which the performance of high school deaf and hard-of-hearing students improved greatly after they were taught with DI programs in reading comprehension, spelling, and writing. Decoding instruction was not a part of the intervention. Of course not, you might say, because deaf children can't benefit from phonics instruction—they can't hear sounds! But perhaps you, like I, will be surprised to learn that deaf and hard-of-hearing students can benefit from explicit phonics instruction. In her paper in this issue of *DI News*, Beverly Trezek presents research on this topic and attempts to explain how deaf and hard-of-hearing students benefit from phonics. In that paper, she includes the results of her own pilot study in which she used *Corrective Reading Decoding* with four high school students who are deaf. Interesting results!

For the most part, *DI News* will publish (a) success stories that show what is possible when DI is implemented with fidelity and (b) papers describing the practices that are entailed in successful implementations. We'll include a tad about the political and philosophical hassles that folks go through as they attempt to initiate and carry out DI implementations. And we also want to include a few papers that enlighten us about the basic principles of DI and stimulate us to think more deeply about philosophical undergirdings. Chuck Baxter's "Myth vs. Science" paper (in this issue) is such a paper. He begins by stating three basic principles that determine logical scientific process and goes on to show how these principles relate to the DI mantra "If the student hasn't learned it, the teacher hasn't taught it."

Hope you enjoy reading this issue as much as I enjoyed editing it. Please send your reactions, stories, questions, and technical tidbits so that they can be shared with others. ~~ADI~~

Cookie Cutter Curricula

Direct Instruction programs comprise a cookie cutter curriculum. At least that's what I've heard for years and years. More recently, I've heard that Success for All is also a cookie cutter curriculum. I've even heard that Core Knowledge is a cookie cutter curriculum, although I didn't know that Core Knowledge was any type of *curriculum* at all.

Normally, I react to "cookie cutter curriculum" about the same way I react to "rote learning," which is to say, barely at all. There seem to be several phrases many educators use to communicate the same message: "I may not know anything about instruction, but I know what I don't like."

But tonight, I'm sitting in a hotel room, drinking the world's most expensive Canada Dry Ginger Ale (from the room refrigerator), with a little time on my hands. At moments like this, I can get very analytical about the most mundane things.

For instance, my first question about a "cookie cutter curriculum" is whether we're talking about a metaphor or an analogy. I suppose that depends on how we phrase things. Direct Instruction is to children as cookie cutters are to cookies. That's clearly an analogy, so one pressing question is answered.

But in what ways is DI like a cookie cutter, and in what ways are the products of DI like cookies? Given that I didn't make up this analogy myself, I can only guess. I think whoever did make up the analogy was trying to say something like, "DI treats all kids as if they were the same."

Now, that doesn't bother me a lot because I know for a fact that ***a major intent of Direct Instruction programs is that of treating kids as if they were all the same—in some ways***. But to explain how that can be both true and positive, I have to consider briefly this corollary statement: All kids are different.

I've actually heard people say this out loud, and heard people say it proudly, as if they were saying something entirely unique and profound. But to observe aloud that all kids are different is about as profound as observing out loud that the Yankees buy good players. Yeah? Really? Wow! Rocket science. Of course all kids are different. Would anyone ever suggest otherwise? Show me any two kids in the world and I'll show you two kids who differ from one another in many, many ways.

When I hear someone actually state out loud that all kids are different, I want to scream out: Yeah? So what? We all know that. What's your point?

Of course, I know their point. If all kids are different, then they must all be taught differently, and treated differently, and "respected as individual human beings," and a bunch of stuff like that. Minor league political correctness. I suppose that if all kids differed from one another in *every way possible*, and were not the same as each other or similar to each other in any ways whatsoever, then maybe we would have to teach them all differently. And what a nightmare that would be. We might pull that off, with some success, if we could manage a ratio of about three teachers to every one child.

I'm going to take a wild guess at something. The person who says out loud, right in front of people, that all kids are different is probably a person who does not give a lot of thought to all the ways kids are the same as, or very similar to, one another. If we were to "say the whole thing," I think we'd have to say: All kids differ from one another in many, many ways, and all kids share some similarities or likenesses or "samenesses." Otherwise, what would be the basis for classifying kids as "kids." (Please don't get on me about the word "kid." Yes, you can use that word to refer to a baby goat, but you can also use it to refer to a child, which is what I'm doing.)

We cannot classify instances of anything, whether dogs or humans, except upon the basis of similarities or shared characteristics. That's what concepts are all about. If we're interested in teaching kids something, then our interest is in specifying the ways in which kids differ, and the likenesses they share, and then sorting out which characteristics influence learning and instruction.

I think that if we spent a lot of time contemplating that question, we'd have to conclude that at least the vast majority of differences among kids have little or nothing to do with instruction and learning. Most obviously, physical characteristics have little to do with instruction. We can safely use cookie cutter curricula with kids who have different hair colors and different sizes and different noses, and so on. We might start to argue when we consider more psychological differences, such as different interests. But that's pretty easy to settle, I think. There is neither a credible analytical argument nor empirical evidence of any sort to support the cultish *belief* that accommodating the interests of different children, instructionally, makes any difference when it comes to instruction and learning.

Content, it seems to me, is independent of a child's interests. Let's say that I'm a young boy who is interested in sports. The *nature of reading*, rather than the boy's interest, dictates about 90% or so of what has to be taught to that boy. Content, and the nature of content, doesn't change according to the interests of children, nor according to any other characteristic of children. If we were trying to teach a gorilla to read, the nature of reading wouldn't change. Obviously, when it comes to the nature of content, differences among learners don't have much to do with anything.

If we accept that the fundamental nature of content does not change according to differences among learners, then perhaps the *nature of learners, independent of content*, dictates differences in instruction. But are learners really more alike in the way they learn or more different? Well, lots of folks like to think that all kids learn differently, but it's difficult to pull hard, specific examples from them. How, exactly, do differences in the way kids learn influence learning some category of knowledge, such as concepts? I've never seen any such specific examples, probably because they can't happen. On the other hand, top notch DI instructional designers, such as Engelmann and Carnine and Steely, could come up with unlimited examples of how very different kids can learn various concepts all through a single teaching presentation. That can happen, and does happen, and it is therefore easy to come up with examples, and pretty easy to prove empirically, and impossible to disprove, because it's true.

One way of illustrating the way a single teaching presentation on a concept can produce uniform learning of that concept is through the use of a DI parlor trick, in which we design a teaching presentation with the intent of ensuring that everyone misinterprets the presentation and does not learn the concept being taught. But why waste the time on such parlor tricks, when there is such a pressing need for kids to learn accurately, and efficiently?

The point is that all kids (and humans) share some characteristics that are useful for learning, and, therefore, instruction has to accommodate those samenesses among learners, rather than the many differences among them. Learning styles and "intelligences" and student interests and modalities couldn't possibly have *too* much influence on learning, not when the nature of content doesn't vary among learners, and not when some of those things that make us all human are so central to learning.

For example, a child with a reading learning disability, from a poverty home, might still be impoverished after finishing Reading Mastery I, but might no longer qualify for having a learning disability.

The cookie cutter analogy breaks down for me in one sense. Yes, every copy of *Reading Mastery I* looks pretty much the same. And if all your cookie cutters happen to be the same, and you always use the same recipe, then all your cookies are going to turn out about the same. But after widely varying kids successfully complete *Reading Mastery I*, guess what: they all differ from one another mostly in the same ways they differed from one another before they started the program. There might be a few differences, but we can live with changing kids in some ways. For example, a child with a reading learning disability, from a poverty home, might still be impoverished after finishing *Reading Mastery I*, but might no longer qualify for having a learning disability. But otherwise, kids end up preserving most of their differences. They don't look like a sheet of cookies in that respect.

On the other hand, such kids might end up looking like a sheet of cookies in another respect. After a good teacher teaches *Reading Mastery I* to a bunch of differing kids, there is a pretty good chance that every one of them will end up the same, in that they will all be well on the road to becoming literate, and they'll all be roughly at the same mile post on that road. In that, I'll concede, the cookie cutter analogy might not be too bad. Do DI programs comprise a cookie cutter curriculum? Yes, I guess in some respects, they do.

That is why I said early on here that ***a major intent of Direct Instruction programs is that of treating kids as if they were all the same—in some way.*** Put another way, the Direct Instruction programs make every effort to communicate the essential nature of content to all learners (because it is the same for all learners), and they make every effort to take full advantage of the ways all humans generalize more accurately and efficiently. Here's something a little funny: it isn't that easy to do! The work and effort and thinking and analysis required for treating all kids the same is extreme. It's *easy* to treat all kids differently. Anyone—absolutely anyone—can design instruction that does not result in highly uniform, cookie-like achievement across widely varying students. If anyone really wants kids to emerge at very different achievement levels from an instructional program, based upon the notion that all kids are different, then they can do it, and they can do it as easily as falling off of a log. I think we could come up with a lot of analogies to describe the resulting instructional program, but "cookie cutter" wouldn't be one of them. That's too flattering. ADI

Percentage of Students Scoring At Proficiency or Advanced Levels on the Wisconsin Knowledge and Concepts Examination (Grade 4):

Clarke Street Elementary School

	1997	1999	2000	2001
Reading	42	88	91	92
Language	22	83	93	93
Social Studies	28	94	98	91

Siefert Elementary School

	1997	1999	2000	2001
Reading	22	54	69	68
Language	6	53	60	68
Social Studies	14	62	69	66

Dear Mr. Borsuk and *Milwaukee Journal Sentinel* Editors:

I was gratified to see your web site publish Mr. Borsuk's article on Direct Instruction (November 1, "Great Expectations, Greater Results" at www.jsonline.com/news/metro/nov01/clarke18111701a.asp). Many people, both within and outside of Milwaukee will tell you that with Direct Instruction you can "do what is being done as a whole at Clarke Street, and you get results, year after year, test after test," as Mr. Borsuk so aptly points out..

I was however distressed to see that Mr. Borsuk apparently went out of his way to solicit the opinion of Alfie Kohn, who was quoted as describing Direct Instruction as "rigid, harshly punitive, competitive, characterized by low level 'bunch o' facts' teaching," and who put forth the opinion that Direct Instruction "should be avoided like the plague."

No doubt Mr. Borsuk was following some sort of requirement that he produce a "balanced" report, a mandate which seems to compel education columnists to seek out the most outrageous contrary opinions and insert them, without rhyme or reason, into the midst of otherwise reasonable stories. Indeed, I cannot recall ever reading any article about Direct Instruction in the popular press that did not use precisely this same technique to contrive a sense of controversy (presumably to increase readership?).

I would guess that Mr. Borsuk is unaware that asking Alfie Kohn for a contrary opinion on Direct Instruction is about as original and interesting as collecting Beanie Babies or displaying a "Baby On Board" sign in your car window. It's gotten to the point where I can predict with certainty at the start of any Direct Instruction article that the author will make a point of cleverly inserting this worn-out device, using either Mr. Kohn or one of his peers, people who apparently make their livings by stoking the imaginations of the most extreme and irrational elements of the educational community.

Of course there is nothing wrong with controversy. It's just that true controversy requires that the opposing view come from a credible source. To the best of my knowledge, Mr. Kohn is neither currently nor formerly involved in the implementation of any school reform program that raises the achievement level of any group of children anywhere by any objective standard. Since Mr. Kohn cannot supply us with any tangible evidence that he knows what he's talking about, it seems strange to me that you would solicit his opinion.

As a practitioner who uses Direct Instruction almost every day, I can tell from Mr. Kohn's comments that he is almost totally ignorant about both Direct Instruction and of the effects that it has upon children, and so it would seem that you have assisted him in disseminating misinformation about subjects he doesn't understand. I recommend that you do your readers a service in the future by leaving Mr. Kohn out of your stories on Direct Instruction until such time as he can demonstrate his involvement in an educational reform effort that competes favorably with it.

If you were to publish an article about the latest discovery in astrophysics, and for the sake of introducing controversy you sought out the opinions of the Flat Earth Society, readers would regard you as ignorant. So too when you quote the opinions of demagogues who have apparently achieved nothing in the field of education. I hope your columnists will use better judgment in the future.

Sincerely, David Ziffer

Dear Mr. Borsuk:

It is not necessary in writing an information article about what's Good to give equal voice and moral authority to the Bad.

We do not, for example, give Mr. Osama bin Laden much newspaper or television space for his views on how the United States in particular and the Western World in general are morally corrupt, incompetent, selfish, and present a bad model for others to follow. His views may or may not be objectively correct, but we are not about to listen to him preach on the subject, and no newspaper and no reporter in this country is obliged in the name of impartiality to give Mr. bin Laden column space, whether those views are, in the eye of God, some Muslims, or anyone else, correct or incorrect.

Direct Instruction has much genuine statistical support for its accomplishments, perhaps more than you may be aware. The congruence of the various independent studies, done over 30 years, favorable to Direct Instruction is outstanding. It is that congruence which is particularly persuasive. A single study is one thing, but the consistent results of dozens of studies says something important. If you would like to know more, I suggest you talk to the management of P.R.E.S.S., which is a Wisconsin organization with lots of information available. You can find it at: http://www.execpc.com/~presswis/index.html. I attended its last meeting, and it is an impressive bunch of folks, folks who have children to educate and are not easily taken in by Hoopla and Noise.

Mr. Kohn is scarcely a lone voice crying in the wilderness: He represents the views of many professors of education, many teachers, many principals, and even many superintendents, the very people who have brought us the present mess and perpetuate it, and especially does Kohn represent, in almost its purest form, the teachings of John Dewey and the Columbia School of Education and all its myriad followers, who have pretty well ruined the public schools throughout the entire country over the past century.

Mr. Kohn certainly does not reflect the views of parents anxious to get their children to learn to read, write, and do arithmetic. If you have any doubt on this, please do as I did, and purchase Mr. Kohn's books and read them carefully. They have a superficial plausibility, and that is all. They are utterly one-sided.

But not only have people who think like Mr. Kohn ruined the schools (see: *The Schools We Need and Why we Don't Have Them*, by E. D. Hirsch), they may inadvertently put you personally on the street without a job. "How so?" you may well ask.

Fewer and fewer people read newspapers, and this correlates well, albeit inversely, with the number of people who either do not know how to read or can't do it very well. The fewer the people who read and care to read, the fewer newspaper readers there are, and the fewer the number of daily newspapers. The wasteland of TV is not the problem. Enough good regular readers to sustain a paper is the problem.

Educational methodologies and curricula are fairly complex topics worthy of your consideration as a reporter, and we are glad you addressed them in this case, but there is much much more to be written.

You could have, for example, addressed the real difficulties of installing and maintaining the Direct Instruction curriculum in a particular school. This is not an easy trick to accomplish, and there are emerging data that indicate that it may be easier to install Direct Instruction throughout an entire district than simply on one school. This would be a helpful thing to study and write about. Mr. Kohn's demagogic views are not, however, useful in such a context.

Those of us who have been searching desperately for systematic, replicable, educationally sound and verifiable means to fix the atrocious mess of the public schools, need good, well-researched stories about what really works. We do not need to hear quoted off-the-wall apologists for the current mess trumpeting again and again the latest buzzwords celebrating as successes the continuing ruinous failures of the last century. Mr. Kohn spouts words of outrage and fury, but he has yet to offer a means to teach children well and truly. His views should not be put in the limelight under these circumstances. He may be a "constructivist" critic, be he is scarcely a constructive critic.

Yours, John Shewmaker

GARY and KAREN SHMERLER, Verona, Wisconsin

Alex's Story

Our story begins in 1992 with the birth of our first child Molly, a perfect baby. Molly was a delightful baby girl who learned to talk at a very early age. By the time she was a year old, she could already speak in complete sentences. It was easy to see that Molly's development was well within the average range. She was the joy of our lives! In 1994, we added another bundle of joy to our family. His name was Alex. From the start, Alex's entry into the world was not so easy. From the minute he was born, he had problems. First, Alex could not breathe when he was born. We found out that Alex was born without nasal passages in the back of his throat. This is called Choanal Atresia. Alex was placed in the ICU with an oral airway in his mouth. Our hospital did not have a Pediatric Ear, Nose, Throat expert on staff, so a specialist from the University Hospital was sent for. Surgery was necessary and the doctor assured us that she had performed this surgery before. So, at 9 days of age, the specialist operated on Alex. At 20 days of age, Alex was again having difficulty. It was at that point that we discovered the specialist performed the surgery incorrectly. Needless to say, we do not know how long Alex went without the proper oxygen levels in his blood or if some of the problems he has today were due to this surgery. In attempts to correct the mistakes, the specialist performed 15 more surgeries on Alex. It was at that point that we realized we needed to take Alex elsewhere to get him proper care. As parents, we realized that we were the only voice for our baby. If we didn't stand up for him, who would? Now, we have to live with our stupidity and our choices that we made for Alex for the rest of our lives, and his. We learned that parents must always search for the right answer and if you are still unsure, then you have to make a decision and hope it's the best one you could make at the time.

At 7 months of age, we found out that a part of Alex's brain was missing since birth. This is called Agenesis of the corpus callosum (ACC). ACC is a rare congenital abnormality in which there is a partial or complete absence in the area of the brain which connects the two cerebral hemispheres. It is actually the fiber network that connects the two sides of the brain and allows the two hemispheres to talk to each other. Kids can be perfectly normal or severely delayed. At this point, we asked for early childhood intervention. We paid for outside therapies for Alex to give him the best chance to succeed. We were committed to searching out the right answers for him in terms of therapy and education in order to give him the best shot at life.

By the time Alex was 2 years old, he had already gone through 37 surgeries. His life experiences had been filled with challenges to say the least. At 3 years of age, Alex was eligible to

attend Early Childhood classes in a public school system. We had heard that a neighboring school system had the best program for working with kids with disabilities. So, after checking into the program, we moved to that district.

It was now fall of 1997; Molly was starting kindergarten and Alex Early Childhood classes in this new school district. The school appeared to be a traditional educational system, but we were immediately disappointed with Molly's progress. We became painfully aware that our child was a victim of a classic school paradigm of passing kids through with little regard to performance. The lack of curriculum accountability was so bad that a teacher had prepared comments for Molly's report card without accurate knowledge about her learning experience. The principal had no answer and affected no change to rectify the situation. A perfect example of a system constructed around mediocrity. So, we looked at other school systems and found a charter school right within our own school district that offered Direct Instruction (DI) and Core Knowledge. We knew nothing about either DI or Core Knowledge, but again we did some research. We were told that at this charter school they teach the basics and worked on a foundation to build learning skills. The district central office told us that DI was the "old" way of learning and that it provided little flexibility and creativity for students. They also said that it required little flexibility and creativity from the teaching staff as well. We decided to observe the program and saw something completely different. The kids seemed to like the energetic style of teaching and they received a consistent teaching message. We were also told by educators outside of the charter school that the DI method of teaching wasn't for everyone. We couldn't understand why, seeing as how in the classrooms we observed every child appeared challenged, yet successful. The kids also seemed happy. We thought that this type of instruction was exactly what Molly needed. There was only one problem. You could only get into this charter school by a mail-in lottery system. Your application had to be sent in and postmarked after midnight on a certain date. We believed so strongly that Direct Instruction was what Molly needed that we completed 72 applications. Beginning at midnight on the designated date, we proceeded to mail 72 applications at various post offices around the city. Molly's application was drawn first in the lottery, which placed her first on the *waiting list!* That was in December. It wasn't until right before school started in August of the next school year that a family from that school moved out and there was now an opening in first grade for Molly. So, Molly was in. We decided to hold Alex back one more year in the Early Childhood program.

We became painfully aware that our child was a victim of a classic school paradigm of passing kids through with little regard to performance.

Throughout that year, and given all of the specialists and observations, we came to the understanding that Alex's disability is a neurocognitive disorder associated with a significant language disorder, severe constructional apraxia, which greatly interferes with the development of cutting, coloring, pasting, and handwriting, significant right-left disorientation, gross motor delays, visual impairments, difficulty grasping the relevance of time, and severe delays in all basic academic skills. Alex's diagnosis is actually not specific to any one category, but is one that appears a mixture of many difficulties. We were all too well aware of the challenges Alex would face in school. We also recognized that his gregarious, socially interactive personality would be his greatest asset in trying to overcome his learning disability.

Upon Alex reaching kindergarten age, we needed to make a decision about educational programs for him. Again, the district central office encouraged us to put Alex in the traditional setting so that he "wouldn't fall behind." We found that interesting, given the fact that their traditional setting had failed to teach our daughter Molly. We had already concluded that their traditional setting was consistent with a program designed and built around mediocrity. We knew that the DI programs taught at the charter school were working well for Molly. We did more research and believed that DI was exactly what Alex needed too. Therefore, contrary to the central office position, we decided to enroll Alex in the same charter school as his sister Molly. This time there was no need to fill out 72 applications and mail them at midnight. Alex was automatically enrolled in the charter school because he had Exceptional Educational Needs (EEN) and was a sibling. (Enrollment preferences were given to EEN children and siblings.) Given Alex's learning disability, we set up biweekly meetings with his IEP team. At first, Alex made very little progress. We then realized that the central office had provided an EEN teacher for Alex who had no DI background. At our family's own expense, we hired a DI consultant to train the EEN teacher and had some success. However, we later found that the EEN teacher did not always follow the specifics of the teaching method and inserted her own traditional teaching ideas after all. Alex progressed, but very slowly. It wasn't until after hiring one of the school's trained DI teachers to tutor Alex during the summer months that we saw unbelievable progress!

It is only October of Alex's first-grade year. He is successfully reading stories to us from his reading book. He is beginning spelling instruction. He can count to 40, recognize numbers, add and subtract, and is beginning to

understand math concepts. Alex is eager to go to school everyday. We are able to track his progress in a very measurable way. The staff has been creative in coming up with ways to accommodate Alex's learning needs while keeping to the DI method of instruction. What a team, what a program, what a fine young man Alex will be able to become!

In closing, our family is grateful to have this educational approach to learning. DI has been successful for both of our children. We learned when Alex was only 7 months old that we, as parents, need to always search for the right answers for our kids. Whether you search for medical advice or for proven educational systems, we encourage all parents to seek out the research for yourselves. Your children's future depends on it. We searched for the right answers in education, and we found it in DI! ADI

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Does Direct Instruction in Phonics Benefit Deaf Students? If So, How?

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The National Reading Panel (2000) was established in response to a 1997 congressional directive. In April 2000, the panel published a report that represents the most comprehensive review of existing reading research to be undertaken in American education. The panel identified more than 100,000 research studies completed since 1966 and subjected them to rigorous criteria for review. From its review of the scientific literature, the panel determined that effective reading instruction must teach children (a) to utilize phonemic awareness skills; (b) to apply phonics skills; (c) to read fluently with accuracy, speed, and expression; and (d) to apply reading comprehension strategies to enhance understanding and enjoyment of what they read.

In the field of deaf education, two views exist regarding reading instruction for deaf individuals. The dominant view is that deaf individuals learn to read using essentially the same processes as hearing individuals. The opposing view is that deaf individuals learn to read using different processes (Musselman, 2000). Adopting the dominant view of reading development among deaf individuals, along with the findings of the National Reading Panel, it appears as though deaf individuals, like hearing individuals, must "develop phonological processing capabilities in order to become skilled readers" (Musselman, p. 13). Leybaert (1993) concluded that our failure to address the phonological components of reading instruction is precisely what underlies the reading problems of deaf individuals.

It is well documented in the literature that deaf students who graduate from high school are significantly delayed in their reading achievement when compared to their hearing peers. The Gallaudet Research Institute recently reported performance on the Stanford Achievement Test for a national sample of deaf students. Results indicated that the average reading level for 18-year-old deaf students was fourth grade (Traxler, 2000). These findings are consistent with data collected over the past 70 years (Pintner & Patterson, 1916; Myklebust, 1960; Holt, 1994).

This paper presents a brief summary of the communication philosophy debate in the field of deaf education in order to appreciate the impact communication philosophies have on the type of reading instruction deaf children have received. The foundation of the alphabetic writing system of English and phonological knowledge will also be explored to determine the role of phonological knowledge in reading for deaf individuals. The evidence that deaf readers have access to phonological information and are able to gain this access by means other than hearing will be summarized. Finally, studies supporting phonological instruction for deaf students will be presented and discussed.

Communication Philosophies

Until the 1960s, instruction for deaf children was primarily auditory-oral. The development of spoken language, the use of residual hearing and the acquisition of speechreading skills were primary goals of this method. A better understanding of the linguistics of American Sign Language (ASL), coupled with the failure of the auditory-oral method for many deaf children, led to the introduction of the Total Communication method. Total Communication incorporates gestures, fingerspelling and sign language to support deaf children's use

of residual hearing and speechreading. In practice, Total Communication generally refers to the simultaneous use of spoken language and English-based signs (Stewart, 1993).

The distinction between ASL and English-based signs is an important one. ASL is a natural language with its own vocabulary and syntax. Signs in ASL correspond roughly to words in spoken English. The order of signs in ASL, although different than the order of words in spoken English, conveys syntactic information. Unlike spoken English, however, syntactic information in ASL is also transmitted through body movements and facial expressions (Meier, 1991).

The English-based sign system, on the other hand, can best be described as a manual code of spoken English. Approximately 70% of the signs used in the English-based sign system derive from ASL but, unlike ASL, signs are arranged in English word order. In addition, artificial signs were created to represent function words and the inflectional morphemes of English. Despite this attempt to replicate English in a manual form, the English-based sign system failed to increase reading levels in deaf children (Stewart, 1993; Stokoe, 1975).

By the 1990s, several leaders in the field of deaf education began to promote the use of ASL, arguing that it was the natural language of deaf people. Advocates insisted that ASL should replace the English-based sign system and become the primary communication method for educating deaf children (Sacks, 1989). Johnson, Liddell, and Erting (1989) strongly endorsed a bilingual/bicultural approach for educating deaf children in their landmark paper, "Unlocking the Curriculum." Bilingual/bicultural programs incorporate both ASL and English, but emphasize English primarily in written form. Socialization in both the Deaf and hearing cultures is also stressed in a bilingual/bicultural model.

Despite the implementation of many bilingual/bicultural programs, the debate surrounding communication methods for deaf children continues and literacy levels among deaf children remain well below those of their hearing peers. Regardless of the communication philosophy adopted, the answer to improving reading achievement in deaf children may be found in the foundations of the alphabetic writing system of English and the associated implications for reading instruction.

To learn to read, children must first develop an awareness of phonemes and utilize this awareness to develop phonological decoding strategies (National Reading Panel, 2000).

Foundation for the Alphabetic Writing System of English

In all alphabetic systems, print encodes spoken language. By design, alphabetic systems "build graphic-phonological mappings into writing systems at the subword level" (Perfetti & Sandak, 2000 p. 34). For example, when a hearing child is presented with the printed word *man,* the child is able to use their knowledge of spoken English to form a link between the written letters *m-a-n* and the corresponding sounds */m//a//n/*. In other words, the hearing child is able to form a link at the subword level.

When presented with the same task of reading the printed word *man,* a deaf child must often rely on their knowledge of ASL or the English-based sign system to form a link. The link established by the deaf child between the printed word *man* and the sign for *man* occurs at the word, rather than subword, level. Even if a link is established between the printed letters *m-a-n* and the letters *m-a-n* in the manual alphabet, the deaf child remains at a disadvantage because there is no relationship between the formational parameters (handshape, placement, movement, etc.) of the manual alphabet and the alphabetic code (Leybaert, 1993). Essentially, a mismatch exists between the type of link established by the deaf child when reading and the phonological link required for reading an alphabetic writing system such as English. This mismatch is further supported by program evaluation studies (Rogers, Leslie, Clarke, Booth, & Horvath, 1978; Geers & Moog, 1989) indicating that orally educated deaf children achieve higher levels of reading skills than those educated using sign language. One possible explanation for the higher levels of achievement is that orally educated deaf students have acquired phonological knowledge.

Phonological Knowledge

Phonological knowledge is an important prerequisite to reading acquisition. Phonemes are the abstract building blocks of the phonological system. To learn to read, children must first develop an awareness of phonemes and utilize this awareness to develop phonological decoding strategies (National Reading Panel, 2000). In other words, learning to read English involves learning that letters correspond to speech sounds. Children who are successful readers use this knowledge and can apply it to reading tasks.

The crux of the problem for the majority of deaf readers, for whom ASL or the English based sign language is their first or primary language, is that they have not acquired strong skills in spoken English, and hence, have probably not developed phonological knowledge. If phonology forms the foundation for learning to read, a deaf child who lacks phonology is faced with a tremendous obstacle when learning to read.

In examining this obstacle, there are two general areas to explore. First, the information available regarding the use of phonological processes by successful deaf readers must be examined to determine if deaf readers are able to utilize phonological information in reading. Second, it is important to determine if access to phonological information can be achieved through a mode other than hearing.

Evidence of Deaf Readers' Access to Phonological Information

Recently, several authors have summarized the evidence indicating that deaf readers have access to phonological information despite the inability to gain this information auditorially (see Leybaert, 1993; Musselman, 2000; and Perfetti & Sandak, 2000 for reviews). Several of the reviewed studies relied on rhyming and lexical decision making tasks to measure phonological processing by deaf readers. In one such study, Conrad (1964) assessed the ability of orally educated deaf adolescents to remember sets of written words. One set of words contained phonologically similar (rhyming) words while the second set contained visually similar words. Conrad suggested that the type of errors made by the deaf subjects would indicate how they were coding the words internally. He hypothesized that subjects coding words phonologically would have greater difficulty remembering the set of rhyming words because they would be easily confused. Similarly, subjects coding words visually would have greater difficulty remembering the set of visually similar words. In examining the responses, Conrad found that the majority of his deaf subjects made more errors with the phonologically similar set than with the visually similar set. He also noted that phonological coding was associated with higher levels of reading comprehension among his subjects.

Although the subjects of Conrad's study were educated orally, similar findings have been obtained with students educated utilizing sign language. Kelly (1993) investigated the presence of phonological encoding by deaf teenagers using a lexical decision task. In this study, deaf teens educated in a Total Communication environment were presented with strings of letters that were either phonologically and orthographically similar or orthographically similar only. Participants were asked to determine if the strings of letters constituted words. Kelly concluded that the deaf teens' faster reaction time for word pairs that were phonologically and orthographically similar compared to pairs that were only orthographically similar indicated an access to phonological information.

Due to the control for spelling, these results infer that deaf participants accessed and applied phonological information to this reading task.

Several studies involving deaf college students with profound hearing losses, unintelligible speech, and for whom ASL was their first language, provides further evidence that deaf individuals demonstrate knowledge of phonological information (Hanson & Fowler, 1987; Engle, Cantor, & Turner, 1989; Hanson & Lichtenstein, 1990; Hanson, Goodell, & Perfetti, 1991; Hanson, 1982). Hanson and Fowler compared the performance of college age deaf and hearing students on their ability to identify rhyming words. Participants were presented with pairs of written words and were asked to determine which pairs rhymed. The task was constructed so that participants were unable to rely on orthographic similarities alone when making their decision. All pairs of words used in this task were orthographically similar, but not all were phonologically similar (wave/save, have/cave). Although the deaf participants were less accurate in their ability to identify rhyming words than their hearing peers, both groups were able to make lexical decisions for rhyming words more quickly than for nonrhyming pairs. Due to the control for spelling, these results infer that deaf participants accessed and applied phonological information to this reading task.

Hanson et al. (1991) conducted an experiment comparing the ability of deaf and hearing college students to make semantic acceptability judgments of printed sentences, half of which were tongue-twister sentences. Results indicated that both groups made more errors on the tongue twister than the control sentences. Furthermore, prior to reading sentences, participants were required to read a list of digits and then recall the list after reading a sentence. When the list of digits were phonetically similar to the tongue twister sentence, (10, 12, 20—Tom and Tim talked together), both deaf and hearing participants made more errors than when the digits to be recalled were phonetically different from the words in the sentence.

Leybaert and Alegria (see Leybaert, 1993) supplied the first account of deaf readers using phonological coding during actual reading tasks. In a series of studies requiring participants to read aloud, deaf participants were able to pronounce words and pseudowords (word-like strings of letters without meaning) in a manner similar to hearing participants. Results indicated that pseudowords containing simple phonology and regular words were easier for the deaf participants to decode than pseudowords containing complex phonology and irregular words. Therefore, it appears that deaf readers are able to use phonological information during oral reading.

The majority of studies providing evidence that deaf readers have access to phonological information have been conducted with adolescents and college students. This has led some researchers to conclude that, for deaf readers, "phonological encoding is an outcome of learning to read rather than a prerequisite" (Musselman, 2000, p. 13). A study by Hanson, Liberman, and Shankweiler (1984) is one of the few conducted on beginning deaf readers. The authors of this study compared short-term memory for sets of letters under three conditions; phonetically similar (B C P V), manually or dactylically similar (M N S T) and visually similar (K W X Z). The sets of letters were presented repeatedly to beginning deaf readers educated in a Total Communication environment. Based on standardized measures of reading achievement, the students were divided into two groups: good readers and poor readers. Improved performance in the participants' ability to remember letters in one condition over another was used as evidence of encoding.

Results of this study indicated that the deaf children classified as good readers used both phonetic and manual codes in short-term retention of printed letters. On the other hand, the deaf children classified as poor readers did not demonstrate the use of either of the linguistically based codes in recall. Neither group relied on visual cues as a strategy for recall. The authors concluded that "the success of deaf children in beginning reading, like that of hearing children, appears to be related to the ability to establish and make use of linguistically recoded representations of the language" (Hanson, Liberman, & Shankweiler, 1984, p. 378).

The existing data support the hypothesis that skilled reading by deaf individuals, like that of hearing individuals, involves phonological coding. Phonological coding is traditionally thought to be a function of hearing and speech. Leybaert (1993) suggested that acquisition of phonological information is not dependent on the use of residual hearing for deaf individuals. Evidence indicates that deaf readers may be able to gain access to phonological information by means other than hearing.

The existing data support the hypothesis that skilled reading by deaf individuals, like that of hearing individuals, involves phonological coding.

Alternatives to Accessing Phonological Information

Many deaf individuals must rely on sources other than audition in order to gain access to phonological information. Deaf individuals use information provided by speechreading, Cued Speech, and articulatory feedback to develop knowledge of the phonological characteristics of English.

Speechreading

One alternative source for gaining access to phonological information is speechreading. Researchers hypothesize that deaf individuals are able to link the speech that is visible on the mouth to printed letters and words. While reading, hearing readers connect letters to phonemes and retain them in acoustic storage. Deaf individuals, on the other hand, connect letters to articulatory movements retaining them in visual-spatial storage (Chalifoux, 1991). Anecdotal evidence supporting this hypothesis comes from observations of deaf children engaged in tasks evaluating short-term memory. These observations revealed that deaf children tend to mouth words when asked to respond to stimuli (Chincotta & Chincotta, 1996). A potential problem with using speechreading as a source for gaining phonological information is that a particular mouth movement may represent more than one phoneme (i.e. /p/, /b/, and /m/) and some phonemes are not visible on the lips (/k/ and /g/) resulting in an incomplete or ambiguous phonological representation (Alegria, 1998; Leybaert, 1998). Cued Speech (Cornett, 1967) is a system designed to differentiate visually similar phonemes.

Cued Speech

Cued Speech is a visual communication system developed by Dr. Orin Cornett in 1966 in an effort to raise literacy levels among deaf students. Cued speech employs eight handshapes representing the consonant sounds with four locations near the mouth representing vowel sounds. A speaker using Cued Speech makes hand cues that correspond to each spoken syllable thereby conveying the same sequence of consonant-vowel combinations as spoken English. Using Cued Speech, deaf learners have access to the phonemes of English via a sensory channel rather than the impaired auditory channel. Cued Speech also enables the deaf learner with no residual hearing equal access to the phonology of English. Finally, unlike speechreading, Cued Speech provides unambiguous access to English phonology. Unfortunately, Cued Speech is not widely used in the education of deaf students and therefore students may need to rely on articulatory feedback as a means of acquiring phonological knowledge.

Articulatory Feedback

Another possible route for gaining phonological information is feedback from articulation. LaSasso (1996) suggested that deaf readers are able to use a tactile-kinesthetic feedback system to successfully utilize phonics as a tool for reading. The tactile-kinesthetic system refers to mouth movements and vocal sensation (e.g. voiced or unvoiced) and functions similarly to the auditory feedback system used by

hearing readers. Using this system, deaf readers use knowledge of how various words are pronounced and review possible pronunciations for the sequence of letters. Like hearing children, deaf children analyze whether the series of sounds, mouth movements, and vocal sensations are similar to a word in their experience. Deaf children are likely to recognize a word if the sensations produced in the vocal tract have previously been vocalized or subvocalized and meaning has been attached to the vocalization or subvocalization. Moreover, a tactile-kinesthetic system is not dependent on deaf children's ability to pronounce the resulting word accurately. However, it is dependent on their ability to consistently use the appropriate mouth movement and tactile sensation for each letter-sound correspondence.

Several authors have argued that the acquisition of phonological information by deaf individuals relies on the combination of sources such as the written word, fingerspelling, speechreading, and articulation rather than one source. Because deaf individuals may have limited ability to hear speech, the primary means of accessing phonological information, several sources may be needed for deaf individuals to gain access to the phonological information necessary for successful reading (Leybaert, 1993). Despite the evidence that deaf individuals are able to acquire access to phonological information, relatively few studies have addressed teaching deaf children to utilize phonological information to learn to read.

Studies Supporting Phonological Instruction for Deaf Students

In a recent study conducted by Schimmel, Edwards, and Prickett (1999), basic phonic skills were taught to 48 deaf elementary students at the Mississippi School for the Deaf. Results indicated that most participants mastered the 21 consonants and consonant blends, short and long vowel sounds and 16 vowel combinations. They concluded that consistent teaching of the letter/sound correspondences was an important factor in the students' success.

Despite their limitations, they gained more than a grade level given less than a year of Direct Instruction programming in reading.

Direct Instruction programs provide consistent teaching of skills through unique curricular design and specific teaching techniques. A recently conducted pilot study provides the first evidence that Direct Instruction programs can address the phonological needs of deaf readers. In this pilot study, four deaf high school students received instruction in levels B2 and C of the *Corrective Reading, Decoding* program. After 7 months of instruction, students gained between 1.2 to 2.5 grade levels on standardized measures of basic reading and reading comprehension (Trezek, 2000). Pretest scores indicated that, prior to this study, those same students had gained only 0.2 to 0.3 grade level per year in school. These pretest findings are consistent with the averages for the 17,000 deaf students reported by Di Francesca in 1972.

The students in the Trezek (2000) pilot study were described as having severe hearing losses and varying degrees of aided residual hearing, speechreading abilities, and intelligible speech. Despite their limitations, they gained more than a grade level given less than a year of Direct Instruction programming in reading. Of course, modifications in the delivery of Direct Instruction lessons were required. Additional time was needed to present lessons in order to practice pronunciation of newly presented sound combinations and words, engage in speechreading and auditory training activities related to sounds and words, to establish appropriate signs for vocabulary words, to review previously presented concepts, and provide pictorial (photographs, graphics, videos, etc.) representations of new vocabulary.

A computer-based program is currently being developed to assist in teaching the phonics elements found in the *Corrective Reading, Decoding A* to deaf students. Using Baldi (a computer generated face with transparent skin and lips), deaf students will be taught the important points of articulation for all speech sounds. This is particularly important when teaching sounds that are not visible on the lips or for those that are difficult to describe (i.e. /k/ and /g/). The computer program will also include a component that will allow a teacher to say a sound into a microphone and have the computer produce a graph of the sound. Deaf students can then monitor their own production of the sound by trying to match the teacher's graph. Finally, words presented in the *Decoding A* program are generally phonetically regular words (i.e. hen, cot, cast, mast, shed, etc.) that may be unknown to many deaf students. Preteaching the vocabulary through a pictorial glossary included in the computer based program will provide deaf students with a stronger English language base to associate meaning with words they are being taught to decode (Oregon Center for Applied Sciences, 2001).

Summary and Conclusions

According to the findings of the National Reading Panel (2000), phonological skills such as phonemic awareness and phonics are essential components of effective reading instruction for hearing students. The

evidence of poor reading achievement among deaf students may be directly related to the lack of instruction focusing on these essential skills. Research indicates that skilled deaf readers have access to phonological information and are able to apply this knowledge to reading tasks. The methods deaf readers use to acquire phonological information may differ from hearing individuals, yet research findings indicate that deaf individuals can use multiple routes to gain access to critical phonological information. Although limited, studies indicate that students receiving instruction specifically designed to teach phonological skills have been successful. With proper modifications, Direct Instruction reading programs can be successfully implemented with deaf students. Future research should focus on the implementation of *Corrective Reading, Decoding* with larger numbers of students. In addition, studies should be conducted on the use of Direct Instruction reading programs with younger deaf students. ADI

References

Alegria, J. (1998). The origin and functions of phonological representations in deaf people. In C. Hulme & R. M. Joshi (Eds.), *Reading and spelling: Development and disorders* (pp. 236–286). Mahwah, NJ: Erlbaum.

Chalifoux, L. M. (1991). The implications of congenital deafness for working memory. *American Annals of the Deaf, 136*, 292–299.

Chincotta, M., & Chincotta, D. (1996). Digit span, articulatory suppression, and the deaf: A study of the Hong Kong Chinese. *American Annals of the Deaf, 141*, 252–257.

Conrad, R. (1964). Acoustic confusion in immediate memory. *British Journal of Psychology, 55*, 75–84.

Cornett, O. (1967). Cued Speech. *American Annals of the Deaf, 112*, 3–13.

Engle, R. W., Cantor, J., & Turner, M. (1989). Modality effects: Do they fall on deaf ears? *Quarterly Journal of Experimental Psychology. 41A*, 273–292.

Geers, A., & Moog, J. (1989). Factors predictive of the development of literacy in profoundly hearing-impaired adolescents. *Volta Review, 91*, 69–86.

Hanson, V. L. (1982). Short-term memory recall by deaf signers of American Sign Language: Implications for order recall. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 8*, 572–583.

Hanson, V., & Fowler, C., (1987). Phonological coding in word reading: Evidence from deaf and hearing readers. *Memory and Cognition, 15*, 199–207.

Hanson, V. L., Goodell, E. W., & Perfetti, C. A. (1991). Tongue-twister effects in the silent reading of hearing and deaf college students. *Journal of Memory and Language, 30*, 319–330.

Hanson, V. L., Liberman, I. Y., & Shankweiler, D. (1984). Linguistic coding by deaf children in relation to beginning reading success. *Journal of Experimental Child Psychology, 37*, 378–393.

Hanson, V. L., & Lichtenstein, E., (1990). Short-term memory coding by deaf signers: The primary language coding hypothesis reconsidered. *Cognitive Psychology, 22*, 211–224.

Holt, J. (1994). Classroom attributes and achievement test scores for deaf and hard of hearing students. *American Annals of the Deaf, 139*(4), 430–437.

Kelly, L. P. (1993). Recall of English function words and inflections by skilled and average deaf readers. *American Annals of the Deaf, 138*(2), 288–296.

Johnson, R. E., Liddell, S., & Erting, C. (1989). Unlocking the curriculum: Principles for achieving access in deaf education. *Gallaudet Research Institute Working Paper 89-3.* Washington, DC: Gallaudet University.

LaSasso, C. (1996). Fonicks for deff tshildrun? Yoo beddzah! *Perspectives in Education and Deafness, 14*(5), 6–9.

Leybaert, J. (1993). Reading in the deaf: The roles of phonological codes. In M. Marschark & M. D. Clark (Eds.), *Psychological Perspectives on Deafness* (pp. 269–309). Hillsdale, NJ: Lawrence Erlbaum Associates.

Leybaert, J. (1998). Effects of phonetically augmented lipspeech on the development of phonological representations in deaf children. In M. Marsschark & M. D. Clark (Eds.), *Psychological Perspectives on Deafness* (pp. 103–130). Mahwah, NJ: Erlbaum.

Marmor, G., & Pettito, L. (1979). Simultaneous communication in the classroom: How well is English grammar represented? *Sign Language Studies, 23*, 99–136.

Meier, R. (1991). Language acquisition by deaf children. *American Scientist, 79*, 60–79.

Musselman, C. (2000). How do children who can't hear read an alphabetic script? A review of the literature on reading and deafness. *Journal of Deaf Studies and Deaf Education, 5*(1), 9–31.

Myklebust, H. (1960). *The psychology of deafness.* New York: Grune & Stratton.

National Reading Panel (2000). Teaching children to read: An evidence-based assessment of the scientific research literature and its implications. [On-line]. Available: http://www.nationalreadingpanel.org

Oregon Center for Applied Sciences. (2001). *Decoding program for deaf and hard-of-hearing students.* NICHD grant #40697-01.

Perfetti, C. A., & Sandak, R. (2000). Reading optimally builds on spoken language. Implications for deaf readers. *Journal of Deaf Studies and Deaf Education, 5*(1), 32–50.

Pintner, R., & Patterson, D. (1916). A measure of the language ability of deaf children. *Psychological Review, 23*, 413–436.

Rogers, W. T., Leslie, P. T., Clarke, B. R., Booth, J. A., & Horvath, A. (1978). Academic achievement of hearing impaired students: Comparison among selected subpopulations. *B.C. Journal of Special Education, 2*, 183–213.

Sacks, O. (1989). *Seeing voices: A journey into the world of the deaf.* Berkeley, CA: University of California Press.

Schimmel, C. S., Edwards, S. G., & Prickett, H. T. (1999). Reading?...Pah! (I got it!) Innovative reading techniques for successful deaf readers. *American Annals of the Deaf, 144*(4), 298–308.

Stewart, D. (1993). Bi-bi to MCE? *American Annals of the Deaf, 138*, 331–337.

Stokoe, W. C. (1975). The use of sign language in teaching English. *American Annals of the Deaf, 120*, 417–421.

Traxler, C. B. (2000). The Stanford Achievement Test, 9th edition: National norming and performance standards for deaf and hard-of-hearing students. *Journal of Deaf Studies and Deaf Education, 5*(4), 337–348.

Trezek, B. (2000). *New answers to old problems: Deaf children can learn to read.* Unpublished manuscript, University of Wisconsin, Madison.

Myth Versus Science in Educational Systems

Presently in education, a subsystem of our culture, we have acquired a philosophical view of human learning behavior that has a foundation based on myths. These myths have infiltrated most all western psychologies, our language, and even our very way of thinking. Of all the systems in our culture that have been most detrimentally affected by these belief systems is the foundation of the belief structures that guide the educators thinking in educating our children. Most significantly affected by these myths are the lives of those children who experience the greatest difficulty in learning. What are these myths and how have they infiltrated our thinking in the understanding of human learning behavior, especially in teacher/learning systems? And how does one discriminate between a philosophical view of learning based on myth and a scientific investigation that provides a better understanding of learning behavior?

There are three basic principles that determine logical scientific process:

1. Only observable behavior, that can be identified by anyone, is acceptable. No one has ever seen visual processing, auditory sequential processing, or any labeled processing. These are all constructs that have been imposed on real observable events possessing time and space coordinates.

2. Psychological behavior is an interaction. It should not be hard to find agreement that humans—and nonhuman animals as well—respond to objects and contexts around them. People might also concur that how we respond to something depends on the situation in which it occurs. For instance, a smile in a joyous circumstance is perceived as happy, but a smile in a more tragic or painful setting would be apt to be perceived as sadistic or evil. An individual's interactive history is also an influencing factor in how an individual perceives situations. For instance, the loud voice of the sixth-grade teacher is apt to be perceived as frightening to the boy of a loud verbally abusive father, while the boy of a big and loud, but loving and benevolent, father might find the same teacher's voice reassuring and supportive. For all intents and purposes, humans interpret and understand things on the basis of interpreted "sameness" relating the new experience to previous experience.

3. Descriptive constructs are only valid and useful when they are derived from directly observed events possessing time/space coordinates. Traditionally, educators expect the process of behavioral interpretation to be a kind of mysterious exercise, where the expert interpreter (psychologist/specialist) identifies, defines, and explains behavior, usually by some diagnostic tool, and labels it by the use of some invented construct. It is an activity of connecting preestablished labels to people and their behavior, independent of any specific contextual interactive event.

When the practitioner imposes unobservable labels on events, reality is lost in specialist interpretation. This usually victimizes the learner with created information that is unscientific, misleading, and a waste of time. For example, when Billy is distracted from his independent seat work when Arnold Schwartznegger walks into the room, this is real. But to diagnose Billy as A.D.D. as a result of a set of diagnostic tools is not real. When we notice that Billy is a smart speller in composition writing, this is real. But to say that Billy is an intelligent boy on the basis of an IQ test or some other multiple intelligence construct test is not real. Or when Billy learns to read quickly when exposed to the whole word method in his first grade reading group, this is real. But to say that Billy is a visual learner based on some diagnostic tool is not real. Imposing these constructs on events, where it is implied that these invented labels lie somewhere inside the learner, is the common practice in attempting to solve student behavioral problems in our schools.

There is another myth that arises from the use of traditional diagnostics. That is the presumption that descriptive labels somehow imply explanation. Constructs are descriptive but do not explain. As Bertrand Russell said, "Electricity is not a thing, like Saint Paul's cathedral; it is the way things behave. When we have told how things behave when they are electrified, *and under the circumstances* they are electrified, we have told all that there is to tell" (quoted by Cole, 1983).

A child is not distractible *because* of a labeled attention deficit disorder. The term only refers to distractibility and other behaviors that sometimes cluster with it *under certain circumstances*. One of the most misleading aspects of labels is their presumed independence from context. To say that one *is* L.D., or *is* A.D.D., or that one *is* a visual learner, or *is* any other invented construct, implied to be housed in the learner, independent of a specific interactive observable event, leads to spurious thinking and serves as worthless information to the classroom teacher in search of solutions.

To begin with: What is a construct? A construction or "construct" is as the name indicates, something that is constructed rather than observed. It is an invention, an abstraction, a contrivance. This is not to say that constructs have no place in science. Quite the contrary, scientific work is mostly a matter of constructions. But this does not mean that hypothetical entities may be *arbitrarily* created. Descriptive constructs are most valid and useful when they derive directly from contact with events. The manipulation of constructs, to be scientific, can be validated only if securely connected to events.

The field of education is replete with cognitive (construct) process tests that are used to impose mythical constructs on teaching events. The moment this is done reality is all but lost, and the test serves only as worthless information to the teacher.

What are the scientific criteria for constructs?

There are explicit standards for regulating scientific constructs. The following list from Kantor (1957, 1978, 1981) consists of standards consistent with scientific advancement:

- **Distinguish carefully between constructs of all types and the original events.**

  For instance, saying that Billy is A.D.D. is a construct. But when Billy was observed independently doing six problems in single digit addition in his sixth-grade classroom, and he was distracted by the noise of the other classmates who were enthusiastically involved in a more interesting project, it was an original event.

- **Avoid all constructs derived from traditional cultural philosophical sources.**

  For example, psychological constructs that start with, "The student is . . . intelligent, L.D., a visual learner, A.D.D., E.H., etc., etc.," are derived from prejudiced views that are philosophical and cultural overgeneralizations. These overgeneralizations are of no practical value in solving educational/learning problems, and when imposed on learning events are misleading, and usually result in victimizing the learner. These constructions also act to immobilize the classroom teacher, preventing an effective efficient teaching process, especially for those learners that need to be carefully taught.

Learning events become of concern when the student fails to learn to a given standard.

- **When means for obtaining critical information is lacking, keep constructs extremely tentative—and *never* base them on unobservables. Note that only constructs derived directly from observed events have the potential for validity.**

  For instance, when the student is having difficulty keeping up with his/her classmates in first-grade math, any construction or hypothesis other than those developed from the specific observation of the original teacher/learner, math-context interactive event is of little or no value as a remedy to the student's difficulty learning math. Traditional constructs that are imposed on events, such as spatial association deficits, auditory sequential memory problems, or a plethora of other process learning constructs only serve to mark the student as disabled without identifying the aspects of the disabling event.

- **Take an adequate sample of events so that the interrelationships of events may be observed.**

  Learning events become of concern when the student fails to learn to a given standard. Under this circumstance the learner is observed making one of three kinds of mistakes in the context of a specifically defined event. The learner either could not do it, would not do it, or was confused. These three types of mistake events are described respectively as **performance mistakes, compliant mistakes, or discrimination mistakes.**

  There are two types of discrimination mistakes: When the learner overgeneralizes by viewing two different but similar concepts/contexts as the same, the mistake is called a difference mistake. But when the learner undergeneralizes by viewing two concepts/contexts as different that are in fact the same the mistake is called a sameness mistake.

  In example #1: If a first grader confuses the short sound symbol match "e" for "a" in decoding the word "bed" in reading group, this is described as a difference mistake. But for this to be an adequate sample of the mistake type—so that the interrelationship of the events may be observed to be consistent—the learner needs to consistently confuse the short "e" sound for the short "a" sound in a number of reading contexts.

  When this interactive teacher/learner event is consistently observed throughout an adequate sample—supporting the construct **hypothesis of a difference mistake**—a remedy is accordingly implied: teaching similar but different concepts far apart, showing difference.

  In example #2: If the first grader demonstrates fluency in the basal reader in reading group, but does not recognize or generalize those same sound symbol matches in other readers outside of the basal readers, this is described as a same-

ness mistake. But again for it to be an adequate sample of the interrelationship of the specific events, the learner must consistently fail to generalize from the basal reading context to other reading contexts which are both made up of the same sound symbol matches.

If this event is consistently observed, where the learner undergeneralizes, supporting the construct hypothesis of a **sameness mistake,** then a remedy is accordingly implied: placing the two contexts side by side and showing sameness. The above examples, where constructs are an outgrowth of specifically observed context; interactive events are demonstrations of a logical process of teacher/learner remediation as a scientific process.

- **Begin all investigations with observations from which constructs may be derived; avoid starting with constructs and interpreting results in terms of those constructs.**

Mythical constructs that are imposed on events lead to spurious, unscientific thinking. When the first-grade student, who exhibits reading difficulty, is referred to the school specialist for testing, it is usually done to confirm the teacher's suspicion of a specific learning disability. The course of events that typically takes place is as follows. The formal referral is made. A number of predesigned construct diagnostic tests are given by the school psychologist, which are later imposed on the teacher/learner interactive reading group event. And finally, a construct or label is assigned to the learner according to standardized scores of the tests given. Mind you, this is usually done with little or no critical observation of the teacher/learner interactive event of concern.

This kind of diagnostic activity can result only in misleading the teacher in regard to explanation; consequently, it serves as useless information resulting in victimization of the learner. The pursuit of an analysis of learning failure, as an authentic natural scientific process, must first start with the specifically observed teacher/learner interactive event occurring within unique time space coordinates, incorporating the learner's biological and learning history.

The systems analysis process is quite different than the traditional approach to learning problems in education.

All learner failure and the degree of failure may be defined by the type of mistake the learner makes and the degree to which (s)he makes that mistake. The frequency of mistakes defines the degree of failure. In any given teacher/learner event, if the learner is not making more than 5% to 10% error in learning, there is no failure to diagnose or analyze. Consequently, by any reasonable standard there is no learning problem. Or, to state it more constructively, by the teacher's standard of successful learning, where all are making the minimum of mistakes (within the 5% to 10% range), all are constructively learning. When learning failure is observed, the definition of that failure, the degree of the failure, and the explanation of observed failure all lie within the context of the interactive event being observed.

The sole purpose of a systems analysis of learning events is to specifically investigate mistake types according to and within the context they were made. Then, according to the mistake type made, modify the format of the teacher/learner interactive event. It is only when the specialist develops constructions on the basis of the details of the interactive event of concern does the remedial process meet the standard of a natural scientific process.

The systems analysis process is quite different than the traditional approach to learning problems in education. Traditional procedures in education follow a standard followed by most western psychological systems (Cognitive, Humanistic, and Developmental Psychologies, to mention a few). First, a mythical, unobservable construct or a set of constructs is developed. Second, construct tests are developed, independent of real events, to measure the degree to which the construct(s) may be imposed on some designated event in which the learner is experiencing failure. And third, at the expense of the learner, an unobservable and mythical label is assigned to the learner implying cause.

- **Keep interpretive constructs consistent with the events observed; do not base them on other constructs.**

When the learner confuses two similar but different concepts in reading group, where the short "e" sound is decoded as the short "a" sound, a **difference mistake** has been made. When the learner confuses two similar but different concepts in reading group, by decoding the word "then" as "the," a **difference mistake** has been made again. But while the two mistakes that the learner made are the same, the two reading events are different, separate, independent, and have no necessary relationship. This is particularly important information for the reading specialist. The general outline of the remedy: the modification of the contextual teacher/learner interaction (separating the two con-

cepts in teaching and showing difference) is the same, but the details of the two events, that determine the specifics of the modification are different. At no time are the details of one event helpful in resolving the learning confusion of a different context interactive event.

- **Anchor all constructs—such as intelligence, motivation, and attitudes—in observed referents and avoid giving them independent existence as things or causes.**

  John is an *intelligent* writer. Jane demonstrated an excellent *attitude* about how it is not about winning and losing, but how you play the game, when in the game last night after losing by only one point, she went over and congratulated the opposing team. After a long days work, Bill was tired and not *motivated* to finish painting his room.

  In the above examples, three constructs, based on apparent observation, were used to describe real context-interactive events. But to state that John is an intelligent person, that Jane has an excellent attitude, or that Bill is not a motivated person, is giving constructs an independent existence, usually implying cause.

  When statements are made like, "Joe has been diagnosed as learning disabled due to whatever process or brain dysfunction," they are made on the basis of three false assumptions:

1. That psychological behavior is organocentric (the view that behavior is housed in the subject/organism). In reality psychological behavior is noncentric. It is a contextual interaction between things.

2. That the label L.D. is a reified construct (that it exists as a real live thing). Labels like learning disabled, attention deficit disorder, and emotionally disturbed are not real live things like appendicitis, they are abstract notions.

3. That an unobservable, abstract construct can logically and scientifically pass for an explanation or cause. Constructs, even in the most reasonable circumstances, do not serve as explanation, they can only describe.

   When invented labels are created and imposed on learning events of concern, reality is lost and all activity becomes a practice of scientifically irresponsible, jargonistic nonsense.

Constructs, even in the most reasonable circumstances, do not serve as explanation, they can only describe.

- **Use only constructs which are corrigible.**

  Constructs used appropriately are descriptions of circumstantial interbehavior; they describe the organisms/subjects response to concepts/contexts under a specific set of circumstances. If relevant interactive factors of the circumstance change, in all probability, the subjects interactive response will change. With remedial events, if the interaction is effectively corrected or modified, the response/construct will be corrected.

  Mythical constructs such as "low intelligence," "attention deficit disorder," and "learning disability," to mention a few, are treated in conventional diagnostics as if they were incorrigible realities. But in natural scientific systems these constructs are inventions that are not real, and therefore can not be fixed entities. For instance, there is much evidence to show that with early educational intervention, IQ scores can improve as much as 30 to 40 points. In another instance, it is clearly recognized by most professionals that children who have been diagnosed with an attention deficit disorder are only distractible under specific circumstances. In school building circumstances where children have been diagnosed as emotionally disturbed, the label is frequently known as the six-hour syndrome. And in respect to the construct described as learning disability, the label would be more accurately described as a learning disabling situation. It has frequently been shown in education that if you effectively correct or modify the instructional interactional event, you will correct the labeled disability.

- **Avoid turning participating conditions, or those that may be necessary for the event, into determining conditions.** If the brain causes human actions, what causes brain actions? Is the brain a patriarch, itself uncaused, issuing commands, determinant of perceiving? We have no evidence that anything in the universe is self-caused.

  Brain as a Necessary but Not a Sufficient Condition. Much of the attribution of behavior to brain is a confusion of necessary and sufficient conditions. That is, the brain is necessary for all organismic events, but it does not carry out the action alone. It is not sufficient. In other words, the brain participates in all actions but does not determine them. It is only one part of a complex of events that together make up causation.

  The brain is better understood not as an autonomous and self-caused Boss, but as a complex coordinating organ, one condition that enables and participates in the occurrence of such psychological events as attending, perceiving, generalizing, and so on.

  The proponents of a scientific context-interactional view of the brain give full accord to the participation

of biology. But it is only one participating condition. Full accord is also given to personal history, social influences, the situation, and other observed participants. Cause of the entire event is not attributed to any *one* of these factors. In such a view, a psychological event is not something in the head, in the mind, in neurons, in process centers, in DNA molecules; it is comprised of the total interactional complex. Only that total complex = causality = sufficient conditions = the psychological event.

- **Recognize the different levels of organization of things and events and keep explanatory constructs consistent with this recognition.**

An important educational tool is the teaching of any concept by a set of examples. The organization of those examples is a crucial aspect of the effective and efficient success of teaching of that concept. Poorly organized presentation of these examples can accordingly result in a particular mistake type.

The following are examples of the kinds of mistakes that some learners will make due to poor organization; that is, the juxtaposition, or the absence of presented positive and negative examples in teaching formats.

1. In teaching a number of concepts over a period of time, if the teacher attempts to teach similar but different concepts close together, some learners will become confused and will overgeneralize by making difference mistakes.

   This is a common confusion especially of the naive learner. An example of this is when the sounds of short vowels that have similar sounds are taught too close together.

2. In teaching any concept, if the examples of the concept, or the contexts in which the concept is being taught is not broad enough to cover the full range of the concept, some learners will undergeneralize by making sameness mistakes. An example of this is when learners do well on spelling tests on Fridays, but spell poorly in the context of composition writing.

An important educational tool is the teaching of any concept by a set of examples.

3. In teaching any concept, learners need varied practice in achieving mastery. Some learners may need little or no practice, while there may be some that need 7 to 1,400 repetitions. If learners do not receive enough uninterrupted practice they will make performance mistakes by failing to demonstrate mastery.

4. In teaching any concept, learners need varied feedback in the form of organized, meaningful reinforcement to remain motivated. The general rule for teachers is three parts positive feedback to every one part organized corrective feedback in order to be sufficiently reinforced. If learners do not receive sufficient amounts of organized reinforcement in learning a concept, some learners will make compliant mistakes, by demonstrating in one form or another that they don't want to do or participate in the task.

- **Distinguish between the knower and the thing known and avoid merging them.**

Psychology would be of little interest if it did not attempt to advance knowledge. In educational systems this translates to the advancement of the understanding of teaching/learner systems and to creating more effective and efficient teaching for all children.

Presently, modern education is heavily indoctrinated with an organocentric notion which sees behavior housed within the organism. This view, which has played a major role in cognitive psychology, emphasizes innate organizing capacities for knowledge. It contends that there is no outside, impartial viewpoint capable of analyzing individual knowledge independent of the individual exhibiting this knowledge. . . knowing, consciousness, constructing, and all other aspects of the human experience are seen from the point of view of the experiencing subject. We can perceive the reality in which we live only from within our perceiving order.

Gergen (1994) has attacked this position for implying that if we respond to our perceptions of the world instead of to the world itself, we have no way to begin hypothesis testing or other methods of inquiry. The field of Ontology asks if an external world exists and, if so, how we can know what it is like and whether scientific findings of regularity and laws in nature are creations of humans rather than reflections of nature. These questions address cultural constructs rather than observable events. Kantor (1962) takes a no-nonsense approach to such questions:

> Such problems however, can never arise from the study of the scientist's work which plainly reveals that knowledge depends upon things, not things upon knowledge. To achieve knowledge and attain exact descriptions and explanation we must improve our

contact with events. . . . The spurious problems of "reality" and the existence of an external world arise from the simple **confusion** of things with reactions to them. When observations are difficult, when contexts are ambiguous, when observers are deficient (color blind), when relations between things observed and observers vary, those who are dominated by philosophic tradition conclude that observations contribute to the existence of things. (pp. 17–18)

The domination of philosophic tradition has also been apparently responsible for the conventional diagnostic notion that presumes that the knower or the constructivist invents reality according to the constructivist's inner world view. Constructivist's notions have infiltrated educational thinking through diagnostic practices in special education systems. Accordingly, constructs are created. Tests are constructed to specifically measure the constructivists invention, and to the degree a given subject has been stricken with the invented disease. This confusion between a kind of created "reality" of labels of the knower and true reality of the known is a major deterrent to education's progress in becoming a legitimate science.

It is imperative, for the progress of teaching as a responsible profession, that the knower-specialists, with all their bags of construct tests and invented labels, are unveiled for what they are. We must replace this voodoo exercise with an authentic natural scientific process of analyzing events with time and space coordinates. Description and explanation of student learning must be attained through the observations of teacher/learner interactional context events.

- **Derive postulates from observation.**

1. **Behavior is event interdependent.** It is not minds, or information processing, or other constructs that psychology studies scientifically, but the concrete events of organisms interacting with objects, events, or other organisms. These interbehavioral fields in teacher/learner situations range from the learner perceiving sameness of any concept across a broad range of contexts to the mastery of doing any performance act, to subtle reasoning in problem solving.

This confusion between a kind of created "reality" of labels of the knower and true reality of the known is a major deterrent to education's progress in becoming a legitimate science.

2. **All events encompass a media of contact interactional history, and setting.** In addition to organisms and objects, psychological fields include media of contact (sound waves for hearing and light for seeing), interactional history, and setting conditions (i.e. the student comes to school with a cold).

3. **Psychological behavior involves the performance of entire organisms, not special organs or tissues.** The multiplex field precludes confining the activity to the brain or the entire organism as the sole cause of the event. The locus of the psychological event is in the field rather than in the organism.

4. **Explanation for behavior is in the situactivity.** Psychological behavior is noncentric. Explanation for psychological behavior has no center. Contextual events occur without any internal or external determinants. Naturalistic descriptions of observable field events replace all constructed internal events, such as consciousness, mental states, drives, instincts, brain powers, and information processing, as well as external events such as environment.

5. **Psychological events are ontogenic.** Psychological events are historical or developmental. The action of an individual is not isolated. Every action influences other actions, and these successions of mutual influences develop into organized patterned ways of performing that form a unity. That unity is personality.

6. **Constructs are not real live events with time space coordinates.** Scientific constructs are developed on the basis of the unique observed event. But the construction itself is not real.

7. **Learning is the process of generalizing sameness on the basis of the familiar.** All learners generalize sameness on the basis of the familiar. They interpolate, stipulate, and extrapolate in accord with presented positive and negative examples.

- **Use only those constructs that are observable at least in principle, for it is only through observation that science is possible.**

The scientist as a serious investigator must be able to first distinguish between what is observable and what is not observable. And second, the scientist must investigate and construct hypotheses only on the basis of the observable. No one has ever seen minimal brain dysfunction, high or low intelligence, auditory or visual sequential memory, or other internal processes like the

brain seeking sameness, mind, consciousness, and self.

In some contexts "self," a particularly prominent expression in humanistic psychology, has become a term for "mind."

Unobservables become more concrete, at least in principle, when referring to psychological events as participles or verbals: sensing rather than sensation, knowing rather than knowledge, thinking rather than thought. Mind is a cultural construct, an abstraction possessing no internal power. The brain is a necessary coordinating organ, but is not an internal determinant or ruler implying cause. When participles/verbals are used it helps avoid reification (making abstractions into real live things). But the action (i.e. sensing, thinking, imagining, etc.) still fails to indicate that the action is an interaction; that is when we think, we think about *something.* Along the same lines, consider the following: Do "people experience visual images" (Kosslyn, 1995, p. 6), or do people imagine? Does the brain seek sameness or do people seek sameness? Does it take a keen mind to solve complex problems, or does it take a bright person. Does Ann use her imagination, or does she imagine *something?* Does Tom's personality cause problems, or is his behavior inappropriate? In the examples shown, the first refers to constructs and the second to events. In short, do we give the person credit or do we invoke an impersonal construct to carry out the action?

In medicine, for many centuries bloodletting (a process of applying leeches to the human body) was considered a tried-and-true remedy for certain conditions. It was recommended for fevers, inflammations, a variety of disease conditions, and (ironically) for hemorrhage. Although it fell in and out of favor, it persisted into the 20th century and was recommended by Sir William Osler in the 1923 edition of *Principles and Practice of Medicine.* Today such practices are for the most part viewed, within the medical field and throughout our culture, as totally unacceptable nonscientific witchcraft. The field of medicine, as of the mid 20th century, has become a legitimate field of science.

One of the major shortcomings of our training institutions and school systems regards taking responsibility for teaching all children to a given standard.

Education now stands somewhat in the same position, as a science, as did medicine close to 100 years ago. One hundred years ago people bled to death due to ignorance. Today, in education, innocent children's lives are being destroyed, also by ignorance. Disturbingly, the present circumstance in education seems more callous and lethal. This seems so because of the way we in education choose to hang onto ineffective, inefficient, unscientific teaching practices that have been instituted by the politically correct to maintain, for thousands of children, an educationally abusive irresponsible system. There is a trend regarding myths in education: old hoaxes never die, they just get a new life cycle. This is not to say that teachers generally are not dedicated. Many, and maybe even most, teachers are dedicated people. But to be dedicated does not mean that the teacher is necessarily responsible. To be dedicated is a choice, but to be responsible requires in-depth training in the *science* of teaching/learning events.

One of the major shortcomings of our training institutions and school systems regards taking responsibility for teaching all children to a given standard. Consequently, few teachers are equipped to accept the responsibility for student learning failure. Total acceptance of this responsibility equates to the saying, *if the student did not learn it the teacher did not teach it.* In order for training institutions to impart this level of responsibility to their student teachers, the field of education must first teach the student teacher to recognize the difference between philosophy and science. And second, it must become a system whose practices are embedded in a natural scientific viewpoint. Not until these two steps are taken can all children be effectively, efficiently, and responsibly taught to a given standard. ADI

References

Cole, K. C. (1983). The forces of nature. *Discover* (August), 32–33.

Gergen, K. J. (1994). The limits of pure critique. In H. W. Simons & M. Billig (Eds.), *After Post-modernism: Reconstructing ideology critique.* London: Sage.

Kantor, J. R. (1957). Events and constructs in the science of psychology; Banished and recalled. *Psychological Record, 7,* 55–60.

Kantor, J. R. (1962). *The logic of modern science.* Chicago: Principia Press.

Kantor, J. R. (1978). Cognition as events and as psychic constructions. *Psychological Record, 28,* 329-342.

Kantor, J. R. (1981). Interbehavioral psychology and the logic of science. *Psychological Record, 31,* 3-11.

Kosslyn, S. M. (1995). *Image and Brain: The resolution of the imagery debate.* Cambridge, MA: MIT Press.

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continued on next page

Reading Mastery IV–VI

- ❑ Information Presentation
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- ❑ Training

Reasoning & Writing D–F

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Do you have experience implementing one or more levels of one or more Direct Instruction programs throughout a school? Please tell us about that, if applicable.

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ADI maintains a listserv discussion group called DI. This free service allows you to send a message out to all subscribers to the list just by sending one message. By subscribing to the DI list, you will be able to participate in discussions of topics of interest to DI users around the world. There are currently 500+ subscribers. You will automatically receive in your email box all messages that are sent to the list. This is a great place to ask for technical assistance, opinions on curricula, and hear about successes and pitfalls related to DI.

To subscribe to the list, send the following message from your email account:

To: majordomo@lists.uoregon.edu

In the message portion of the email simply type:

subscribe di

(Don't add *Please* or any other words to your message. It will only cause errors. majordomo is a computer, not a person. No one reads your subscription request.)

You send your news and views out to the list subscribers, like this:

To: di@lists.uoregon.edu

Subject: *Whatever describes your topic.*

Message: *Whatever you want to say.*

The list is retro-moderated, which means that some messages may not be posted if they are inappropriate. For the most part inappropriate messages are ones that contain offensive language or are off-topic solicitations.

Summer 2002 Direct Instruction Training Opportunities

The Association for Direct Instruction is pleased to announce the following intensive DI training conferences. These events will provide comprehensive training presented by some of the most skilled trainers in education. Plan now to attend one of these professional development conferences.

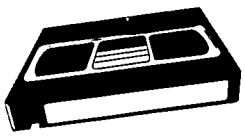
The 5th Southeast DI Conference & Institutes
June 18–21
Orlando, Florida

The 9th Mountain States DI Conference
July 8–10
Colorado Springs, Colorado

28th National DI Conference & Institutes at Eugene
July 21–25
Eugene, Oregon

The Mid-Atlantic Conference & Institutes
July 31–August 2
Durham, North Carolina

The 7th Midwest DI Conference
August 7–9
Chicago, Illinois



Videotapes on the Direct Instruction Model

ADI has an extensive collection of videos on Direct Instruction. These videos are categorized as informational, training, or motivational in nature. The informational tapes are either of historical interest or were produced to describe Direct Instruction. The training tapes have been designed to be either stand-alone training or used to supplement and reinforce live training. The motivational tapes are keynote presentations from past years of the National Direct Instruction Conference.

Informational Tapes

Where It All Started—45 minutes. Zig teaching kindergarten children for the Engelmann-Bereiter pre-school in the 60s. These minority children demonstrate mathematical understanding far beyond normal developmental expectations. This acceleration came through expert teaching from the man who is now regarded as the "Father of Direct Instruction," Zig Engelmann. Price: $10.00 (includes copying costs only).

Challenge of the 90s: Higher-Order thinking—45 minutes, 1990. Overview and rationale for Direct Instruction strategies. Includes home-video footage and Follow Through. Price: $10.00 (includes copying costs only).

Follow Through: A Bridge to the Future—22 minutes, 1992. Direct Instruction Dissemination Center, Wesley Elementary School in Houston, Texas, demonstrates approach. Principal, Thaddeus Lott, and teachers are interviewed and classroom footage is shown. Created by Houston Independent School District in collaborative partnership with Project Follow Through. Price: $10.00 (includes copying costs only).

Direct Instruction—black and white, 1 hour, 1978. Overview and rationale for Direct Instruction compiled by Haddox for University of Oregon College of Education from footage of Project Follow Through and Eugene Classrooms. Price: $10.00 (includes copying costs only).

Training Tapes

The Elements of Effective Coaching—3 hours, 1998. Content in *The Elements of Effective Coaching* was developed by Ed Schaefer and Molly Blakely. The video includes scenarios showing 27 common teaching problems, with demonstrations of coaching interventions for each problem. A common intervention format is utilized in all scenarios. Print material that details each teaching problem and the rationale for correcting the problem is provided. This product should be to used to supplement live DI coaching training and is ideal for Coaches, Teachers, Trainers. Price...$395.00 Member Price...$316.00

DITV—Reading Mastery 1, 2, 3 and Fast-Cycle Preservice and Inservice Training—The first tapes of the Level I and Level II series present intensive preservice training on basic Direct Instruction teaching techniques and classroom management strategies used in *Reading Mastery* and the equivalent lesson in *Fast-Cycle*. Rationale is explained. Critical techniques are presented and demonstrated. Participants are led through practical exercises. Classroom teaching demonstrations with students are shown. The remaining tapes are designed to be used during the school year as inservice training. The tapes are divided into segments, which present teaching techniques for a set of of upcoming lessons. Level III training is presented on one videotape with the same features as described above. Each level of video training includes a print manual.

Reading Mastery I (10 Videotapes) $150.00
Reading Mastery II (5 Videotapes) $75.00
Reading Mastery III (1 Videotape) $25.00
Combined package *(Reading Mastery I–III)* $229.00

Corrective Reading: Decoding B1, B2, C—(2-tape set) 4 hours, 38 minutes + practice time. Pilot video training tape that includes an overview of the *Corrective* series, placement procedures, training and practice on each part of a decoding lesson, information on classroom management/reinforcement, and demonstration of lessons (off-camera responses). Price $25.00.

continued on next page

Conference Keynotes

These videos are keynotes from the National Direct Instruction Conference in Eugene. These videos are professional quality, two-camera productions suitable for use in meetings and trainings.

27th National Direct Instruction Keynotes

Lesson Learned...the Story of City Springs, Reaching for Effective Teaching, and Which Path to Success? 2 Tapes, 2 hours total. In the fall of 2000 a documentary was aired on PBS showing the journey of City Springs Elementary in Baltimore from a place of hopelessness to a place of hope. The principal of City Springs, Bernice Whelchel addressed the 2001 National DI Conference with an update on her school and delivered a truly inspiring keynote. She describes the determination of her staff and students to reach the excellence she knew they were capable of. Through this hard work City Springs went from being one of the 20 lowest schools in the Baltimore City Schools system to one of the top 20 schools. This keynote also includes a 10-minute video updating viewers on the progress at City Springs in the 2000-2001 school year. In the second keynote Zig Engelmann elaborates on the features of successful implementations such as City Springs. Also included are Zig's closing remarks. Price: $30.00

Commitment to Children—Commitment to Excellence and How Did We Get Here... Where are We Going?—95 minutes. These keynotes bring two of the biggest names in Direct Instruction together. The first presentation is by Thaddeus Lott, Senior. Dr. Lott was principal at Wesley Elementary in Houston, Texas from 1974 until 1995. During that time he turned the school into one of the best in the nation, despite demographics that would predict failure. He is an inspiration to thousands across the country. The second presentation by Siegfried Engelmann continues on the theme that we know all we need to know about how to teach—we just need to get out there and do it. This tape also includes Engelmann's closing remarks. Price: $30.00.

State of the Art & Science of Teaching and Higher Profile, Greater Risks—50 minutes. This tape is the opening addresses from the 1999 National Direct Instruction Conference at Eugene. In the first talk Steve Kukic, former Director of Special Education for the state of Utah, reflects on the trend towards using research based educational methods and research validated materials. In the second presentation, ***Higher Profile, Greater Risks,*** Siegfreid Engelmann reflects on the past of Direct Instruction and what has to be done to ensure successful implementation of DI. Price: $30.00

Successful Schools... How We Do It—35 minutes. Eric Mahmoud, Co-founder and CEO of Seed Academy/Harvest Preparatory School in Minneapolis, Minnesota presented the lead keynote for the 1998 National Direct Instruction Conference. His talk was rated as one of the best features of the conference. Eric focused on the challenges of educating our inner city youth and the high expectations we must communicate to our children and teachers if we are to succeed in raising student performance in our schools. Also included on this video is a welcome by Siegfried Engelmann, Senior Author and Developer of Direct Instruction Programs. Price: $15.00

Fads, Fashions & Follies—Linking Research to Practice—25 minutes. Dr. Kevin Feldman, Director of Reading and Early Intervention for the Sonoma County Office of Education in Santa Rosa, California presents on the need to apply research findings to educational practices. He supplies a definition of what research is and is not, with examples of each. His style is very entertaining and holds interest quite well. Price: $15.00

Moving from Better to the Best—20 minutes. Closing keynote from the National DI Conference. Classic Zig Engelmann doing one of the many things he does well... motivating teaching professionals to go out into the field and work with kids in a sensible and sensitive manner, paying attention to the details of instruction, making sure that excellence instead of "pretty good" is the standard we strive for and other topics that have been the constant theme of his work over the years. Price $15.00

Aren't You Special—25 minutes. Motivational talk by Linda Gibson, Principal at a school in Columbus, Ohio, successful with DI, in spite of minimal support. Keynote from 1997 National DI Conference. Price: $15.00

Effective Teaching: It's in the Nature of the Task—25 minutes. Bob Stevens, expert in cooperative learning from Penn State University, describes how the type of task to be taught impacts the instructional delivery method. Keynote from 1997 National DI Conference. Price: $15.00

One More Time—20 minutes. Closing from 1997 National DI Conference. One of Engelmann's best motivational talks. Good for those already using DI, this is sure to make them know what they are doing is the right choice for teachers, students and our future. Price: $15.00

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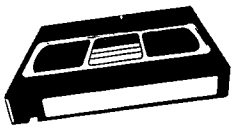

Videotapes on the Direct Instruction Model...continued

Keynotes from 22nd National DI Conference—2 hours. Ed Schaefer speaks on "DI–What It Is and Why It Works," an excellent introductory talk on the efficiency of DI and the sensibility of research based programs. Doug Carnine's talk "Get it Straight, Do it Right, and Keep it Straight" is a call for people to do what they already know works, and not to abandon sensible approaches in favor of "innovations" that are recycled fads. Siegfried Engelmann delivers the closing "Words vs. Deeds" in his usual inspirational manner, with a plea to teachers not to get worn down by the weight of a system that at times does not reward excellence as it should. Price: $25.00

Keynotes from the 1995 Conference—2 hours. Titles and speakers include: Anita Archer, Professor Emeritus, San Diego State University, speaking on "The Time Is Now" (An overview of key features of DI); Rob Horner, Professor, University of Oregon, speaking on "Effective Instruction for All Learners;" Zig Engelmann, Professor, University of Oregon, speaking on "Truth or Consequences." Price: $25.00

Keynote Presentations from the 1994 20th Anniversary Conference—2 hours. Titles and speakers include: Jean Osborn, Associate Director for the Center for the Study of Reading, University of Illinois, speaking on "Direct Instruction: Past, Present & Future;" Sara Tarver, Professor, University of Wisconsin, Madison, speaking on "I Have a Dream That Someday We Will Teach All Children"; Zig Engelmann, Professor, University of Oregon, speaking on "So Who Needs Standards?" Price: $25.00

An Evening of Tribute to Siegfried Engelmann—2.5 hours. On July 26, 1995, 400 of Zig Engelmann's friends, admirers, colleagues, and protégés assembled to pay tribute to the "Father of Direct Instruction." The Tribute tape features Carl Bereiter, Wes Becker, Barbara Bateman, Cookie Bruner, Doug Carnine, and Jean Osborn—the pioneers of Direct Instruction—and many other program authors, paying tribute to Zig. Price: $25.00

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Outside the continental U.S., add $3 more

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ADI, PO Box 10252, Eugene, OR 97440
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Phone 1.800.995.2464 Fax 541.683.7543

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New from the Association for Direct Instruction
A tool for you...

Corrective Reading Sounds Practice Tape

Dear *Corrective Reading* User,

A critical element in presenting *Corrective Reading* lessons is how accurately and consistently you say the sounds. Of course, when teachers are trained on the programs they spend time practicing the sounds, but once they get back into the classrooms they sometimes have difficulty with some of the sounds, especially some of the stop sounds.

I have assisted ADI in developing an audio tape that helps you practice the sounds. This tape is short (12 minutes). The narrator says each sound the program introduces, gives an example, then gives you time to say the sound. The tape also provides rationale and relevant tips on how to pronounce the sounds effectively.

Thanks for your interest in continuing to improve your presentation skills.

Siegfried Engelmann
Direct Instruction Program Senior Author

Order Form: Corrective Reading Sounds Tape

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$21.00 to $40.99	$6.75
$41.00 to $60.99	$8.00
$61.00 to $80.99	$9.00
$81.00 or more	10% of Subtotal

Outside the continental U.S., add $3 more

Send form with Purchase order, check or charge card number to:

ADI, PO Box 10252, Eugene, OR 97440
You may also phone or fax your order.
Phone 1.800.995.2464 Fax 541.683.7543

Qty.	Item	Each	Total
	Corrective Reading Sounds Tape	10.00	
		Shipping	
		Total	

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ADI Association for Direct Instruction

PO Box 10252, Eugene, Oregon 97440 • 541.485.1293 (voice) • 541.683.7543 (fax)

What is ADI, the Association for Direct Instruction?

ADI is a nonprofit organization dedicated primarily to providing support for teachers and other educators who use Direct Instruction programs. That support includes conferences on how to use Direct Instruction programs, publication of *The Journal of Direct Instruction (JODI)*, *Direct Instruction News (DI News)*, and the sale of various products of interest to our members.

Who Should Belong to ADI?

Most of our members use Direct Instruction programs, or have a strong interest in using those programs. Many people who do not use Direct Instruction programs have joined ADI due to their interest in receiving our semiannual publications, *The Journal of Direct Instruction* and *Direct Instruction News*. *JODI* is a peer-reviewed professional publication containing new and reprinted research related to effective instruction. *Direct Instruction News* focuses on success stories, news and reviews of new programs and materials and information on using DI more effectively.

Membership Options

☐ $40.00 ***Regular Membership*** (includes one year subscription to ADI publications, a 20% discount on ADI sponsored events and on materials sold by ADI).

☐ $30.00 ***Student Membership*** (includes one year subscription to ADI publications, and a 40% discount on ADI sponsored events and a 20% discount on materials sold by ADI).

☐ $75.00 ***Sustaining Membership*** (includes Regular membership privileges and recognition of your support in *Direct Instruction News*).

☐ $150.00 ***Institutional Membership*** (includes 5 subscriptions to ADI publications and regular membership privileges for 5 staff people).

☐ $30.00 ***Subscription*** 4 issues (1 year) of ADI publications.

✔ Canadian addresses add $5.00 US to above prices.

✔ For surface delivery overseas, add $10.00 US; for airmail delivery overseas, add $20.00 US to the above prices.

✔ Contributions and dues to ADI are tax deductible to the fullest extent of the law.

✔ Please make checks payable to ADI.

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Phone: _____

School District or Agency: _____

Position: _____

e-mail address: _____

ADI Books Price List

The Association for Direct Instruction distributes the following Direct Instruction materials. Members of ADI receive a 20% discount on these materials. To join ADI and take advantage of this discount, simply fill out the form and include your annual dues with your order.

Title & Author	Member Price	List Price	Quantity	Total
Preventing Failure in the Primary Grades (1969 & 1997) Siegfried Engelmann	$19.95	$24.95		
Theory of Instruction (1991) Siegfried Engelmann & Douglas Carnine	$32.00	$40.00		
Teach Your Child to Read in 100 Easy Lessons (1983) Siegfried Engelmann, Phyllis Haddox, & Elaine Bruner	$16.00	$20.00		
Structuring Classrooms for Academic Success (1983) S. Paine, J. Radicchi, L. Rosellini, L. Deutchman, & C. Darch	$11.00	$14.00		
War Against the Schools' Academic Child Abuse (1992) Siegfried Engelmann	$14.95	$17.95		
Research on Direct Instruction (1996) Gary Adams & Siegfried Engelmann	$19.95	$24.95		

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You may also phone in your order with VISA or Mastercard. Phone 1.800.995.2464
Order online at www.adihome.org

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Thank you to our Sustaining Members

The ADI Board of Directors acknowledges the financial contribution made by the following individuals. Their generosity helps our organization continue to promote the use of effective, research-based methods and materials in our schools.

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Direct Instruction news

ADI Effective School Practices

SARA G. TARVER, Editor, University of Wisconsin, Madison

DI Successes Despite the Obstacles

The accomplishments of the 2002 ADI awards recipients are amazing. Their stories, summarized by Amy Griffin in this issue, encourage us all to work harder to achieve what they have shown to be possible. It is gratifying to know that these phenomenal success stories are representative of a larger and ever growing body of successes across the nation. Through their stories, the recipients share what they have learned in their persistent efforts to implement DI with integrity.

Not all attempts to implement DI are as successful as those of the awards recipients. Fortunately, we can learn from our failures as well as our successes if we study them with open minds. Muriel Berkeley and Carrie Amberge have done that and, in this issue, they share their insights into the variables that must be in place to ensure maximal success with DI. In her paper titled, "When Direct Instruction Doesn't Work," Carrie Amberge focuses on classroom variables that are under the control of the teacher. By juxtaposing what happens when DI does not work against what happens when DI does work, she shows clearly what teachers can do to ensure that their students learn.

In her article on the Baltimore Curriculum Project, Muriel Berkeley discusses a variety of outside-school factors that mitigate against successful implementations as well as some important within-school factors that are essential to success. She does an outstanding job of communicating the type of disciplined adherence to the model that is characteristic of highly successful implementations. This is a must read article for those who are involved or plan to be involved in schoolwide or district-wide implementations of DI.

One of the major obstacles that we all face in our DI work is this: We have to deal with the barrage of misinformation and outright untruths promoted by supporters of whole language and/or other approaches that are not research based (e.g., Reading Recovery). As DI successes have received more and more favorable press in recent years, the whole language attacks have become more and more intense and vociferous. Allington's (2002) paper titled, "What do we know about the effects of Direct Instruction on student reading achievement?" (www.educationnews.org) is a perfect example of the rhetoric filled with untruths that characterizes the whole language camp. Zig Engelmann and Gary Adams's letters of rebuttal to Allington's false allegations against DI (www.educationnews.org) are reprinted in this issue. One by one, Zig lays out the fallacies in Allington's "logic." Adams presents convincing evidence that Allington had not even read the report of DI research that he critiqued so vehemently.

The arguments put forth by Allington and others in favor of reading approaches that do not work are not new. They have been around for a long time. Although the terminology employed in the rhetoric and the names of the recommended teaching approaches have changed in some instances, the substance of what they say and do has not changed. The issues brought up in debates of today are strikingly similar to those that were aired in the last half of the 20th century when research showed again and again that whole language and whole language-like approaches to beginning reading instruction simply don't work. It's time

continued on page 3

FALL 2002, Volume 2, Number 2

In this issue

The DI News is published semiannually by the Association for Direct Instruction. The mission of the Association for Direct Instruction, as stated in the by-laws, is to promote the improvement of effective educational methods.

The Association for Direct Instruction was incorporated in 1981 in the state of Oregon for educational purposes. ADI is a nonprofit, tax-exempt corporation under Section 501(c)3 of the Internal Revenue Code and is a publicly supported organization as defined in Sections 170(b)(1)(A)(ii) and 509(a)(1). Donations are tax-deductible.

A copy or summary of the current financial statement, or annual report, and registration filed by ADI may be obtained by contacting: ADI, P.O. BOX 10252, Eugene, OR 97440 (541-485-1293). ADI is registered with the state of Oregon, Department of Justice, #79-16751.

ANNUAL SUBSCRIPTION RATES: $25 U. S.; $30 (U. S. currency) Canada; $40 Europe; $60 airmail to Europe.

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Contribute to DI News:

DI News provides practitioners, ADI members, the DI community, and those new to DI, with stories of successful implementations of DI, reports of ADI awards, tips regarding the effective delivery of DI, articles focused on particular types of instruction, reprints of articles on timely topics, and position papers that address current issues. *The News'* focus is to provide newsworthy events that help us reach the goals of teaching children more effectively and efficiently and communicating that a powerful technology for teaching exists but is not being utilized in most American schools. Readers are invited to contribute personal accounts of success as well as relevant topics deemed useful to the DI community. General areas of submission follow:

From the field: Submit letters describing your thrills and frustrations, problems and successes, and so on. A number of experts are available who may be able to offer helpful solutions and recommendations to persons seeking advice.

News: Report news of interest to ADI's members.

Success stories: Send your stories about successful instruction. These can be short, anecdotal pieces.

Perspectives: Submit critiques and perspective essays about a theme of current interest, such as: school restructuring, the ungraded classroom, cooperative learning, site-based management, learning styles, heterogeneous grouping, Regular Ed Initiative and the law, and so on.

Book notes: Review a book of interest to members.

New products: Descriptions of new products that are available are welcome. Send the description with a sample of the product or a research report validating its effectiveness. Space will be given only to products that have been field-tested and empirically validated.

Tips for teachers: Practical, short products that a teacher can copy and use immediately. This might be advice for solving a specific but pervasive problem, a data-keeping form, a single format that would successfully teach something meaningful and impress teachers with the effectiveness and cleverness of Direct Instruction.

Submission Format: Send an electronic copy with a hard copy of the manuscript. Indicate the name of the word-processing program you use. Save drawings and figures in separate files. Include an address and email address for each author.

Illustrations and Figures: Please send drawings or figures in a camera-ready form, even though you may also include them in electronic form.

Completed manuscripts should be sent to:

Amy Griffin
ADI Publications
P.O. Box 10252
Eugene, OR 97440

Acknowledgement of receipt of the manuscript will be sent by email. Articles are initially screened by the editors for placement in the correct ADI publication. If appropriate, the article will be sent out for review by peers in the field. These reviewers may recommend acceptance as is, revision without further review, revision with a subsequent review, or rejection. The author is usually notified about the status of the article within a 6- to 8-week period. If the article is published, the author will receive five complimentary copies of the issue in which his or her article appears.

DI Successes...
continued from page 1

for us to put this old debate to rest so that we can move on to asking really important questions such as those posed by Bob Dixon in his View From Askance column in this issue (e.g., questions about the role that phonemic awareness plays, or doesn't play, in beginning reading instruction).

Although most of us old-timers know well the whole language/Direct Instruction debate of the last half-century, newcomers to DI may not. In the belief that knowledge of that history can help us to confront today's obstacles more effectively, the debate is revisited in this issue. Martin Kozloff, in his own unique and analytical style, exposes the flawed logic and the rhetorical devices that Goodman used to launch the whole language movement. He critiques Goodman's 1967 and 1976 papers that portray reading as a "Psycholinguistic Guessing Game" and the miscue analysis that portrays errors as nonerrors. He cites studies which showed that Goodman's conceptualization of reading as a "Psycholinguistic Guessing Game" is just dead wrong.

Kerry Hempenstall's critique of the three-cueing system ties Goodman's early work to whole language as we know it today. The system's overemphasis on semantic and syntactic cues (i.e., meaning cues) at the expense of graphophonic cues (i.e., letter–sound correspondences) is simply another way of misconceptualizing reading as guessing and errors as indications that the learner has constructed meaning. Hempenstall makes the important points that the "running records" employed by today's Reading Recovery teachers (a) provide information similar to that provided by Goodman's miscue analysis, and (b) are based on the same flawed conception of reading. The current emphasis on "Reading Recovery" is but one example of how a flawed approach can change its name without changing its substance.

"Balanced Literacy" is another term that is used today to cloak the same old practices that failed as whole language. In my home state of Wisconsin, for example, balanced literacy is being promoted by the state department of instruction and various school boards. Teachers are strongly encouraged, if not "required," to attend training in balanced literacy instruction. In May of 2002, Professor Mark Schug of the University of Wisconsin, Milwaukee spoke against the balanced literacy program proposed for the Milwaukee Public Schools. His presentation is published in this issue in the hope that it will be helpful to others in the state and around the nation as they work to oppose the continued use of whole language under the guise of balanced instruction. Another must read for DI advocates is Louisa Moats' paper titled, "Whole Language Lives on as Balanced Instruction" (http://www.edexcellence.net/library/wholelang/moats.html).

The February 13, 2002, issue of *Education Week* carried a letter by Goodman in which he compared himself to Galileo and likened his critics to Galileo's enemies. He charged that "current efforts to narrowly define what constitutes scientific research in literacy and more broadly in education, and to decide whose results are to be incorporated into law, are clearly motivated by the same kind of political agendas that motivated Galileo's enemies." Lisa Leppin and David Ziffer, two frequent contributors to the DI listserv, wrote letters to the editor which tell how Goodman got it backwards. The fact that their letters were published in *Education Week* (February 27 issue) is an encouraging sign. The Leppin and Ziffer letters (reprinted in this issue) serve as examples of the kinds of things that each of us can do to contribute to current efforts to move education in the right directions. As Editor of *DI News*, I encourage your involvement and look forward to hearing about it. ADI

ADI Conferences

Save these dates

6th Southeast DI Conference and Institutes
June 10–13, 2003
Adams's Mark, Florida Mall
Orlando, Florida

8th Mountain States DI Conference
July 7–9, 2003
Antlers Adam's Mark
Colorado Springs, Colorado

29th National Direct Instruction Conference and Institutes
July 20–24, 2003
Eugene Hilton and Conference Center
Eugene, Oregon

8th Midwest Direct Instruction Conference and Institutes
August 6–8, 2003
Holiday Inn Mart Plaza
Chicago, Illinois

BOB DIXON

Reading First, Phonics, Phonemic Awareness, and the Analysis of Content

Lately, I've pinched myself upon awakening every morning. The Reading First Initiative. Is it real, or did I just dream it? The critics of this incredible piece of bi-partisan legislation are coming out of the woodwork, so I guess it's real.

Briefly, states apply to the Department of Education for grants to improve K–3 reading, in the areas of phonemic awareness, phonics, fluency, vocabulary, and comprehension. Critics call it a "phonics" program, apparently because it includes phonics at all, but certainly not because phonics is the sole focus of the initiative. Most of the money will go to schools and/or districts with the highest poverty levels and lowest achievement levels.

The ongoing and possibly growing criticism of phonics really does astound me. The reason it astounds me so much is this:

Phonics is not a teaching method. Phonics is not instruction.

Rather, phonics is (rather obviously, I think) a description of the relationship between English language, which (just as obviously) is oral, and English orthography, which isn't. To be "against" phonics is like being against subject–verb agreement. The relationship between English language and orthography simply exists. Each language with an orthography has some identifiable relationship to that orthography—some relationship that simply exists. Some writing systems are "more phonemic" than English, which is to say, they more regularly reflect symbol–sound correspondences. Some writing systems are alphabetic, but don't use the Roman alphabet. Some writing systems are logographic (such as Chinese). Some are syllabic (such as Japanese).

Phonics *per se* is not a universal predisposition toward a given approach to reading content. Quite obviously, analyses of other languages and their writing systems yield other descriptions of relationships, many of which are not very "phonemic" in nature. Descriptions of other *phonemic* orthographies, obviously, are different from descriptions of English symbol-to-sound relationships. It is an accurate *description* to say that the sound for X is /k/, if we're describing Greek.

A description of the relationships between English letters and phonemes, *per se*, has no particular implications for *instruction*. In fact, a challenge for most of us would be that of developing such a description initially without looking through instruction-colored glasses. (We can find pretty exhaustive descriptions at the library. Some are tainted with instruction and others are not.)

This requirement of looking at content objectively *before* making instructional decisions is a basic tenant of Direct Instruction design. When we talk about "analysis" in conjunction with Direct Instruction, we are assuming that we first have some instruction-free content to analyze. Otherwise, why do analysis? If we already know how we're going to teach something (meaning we're probably going to do what everyone else does), what would be the point of analysis? (As something of an aside, the traditional notion of "task analysis" is not part of the design of Direct Instruction. DI tasks *derive* from an analysis of content. Nothing derives from an analysis of tasks.)

The critics of "phonics" focus upon letter-to-sound relationships that are "irregular" in some sense, to some degree. A critic would point out that when we see the letter "t," we say one sound; when we see the letter "h," we either say one sound, or no sound at all (e.g., hour); and when we put them together, sometimes we say the two separate sounds (e.g., outhouse), but most of the time, we say one of two completely different sounds, the voiced and unvoiced "th sounds" (as in thin and then).

The fact that someone is criticizing these relationships involving "t" and "h" belies an instructional bias from the beginning. As a *description* of how "t" and "h" work in English orthography, there is neither anything to favor nor anything to oppose. The only real question with respect to a *description* is whether the description is thorough and accurate. If it is, then *as a description*, it is a "good" description. The idea of "opposing" a good description simply doesn't make any sense. We don't oppose good descriptions of syntax, or phonemics (sounds, but no letters).

For the instructional designer (in a DI approach to design), a good description is the critical point of departure for *content analysis*. Generally speaking, the goal of content analysis is to identify bases for generalization. (Good old "rote DI" is more obsessed with generalization than any approach to instruction I'm aware of.) In the course of doing an analysis of practically anything, even math, potential barriers to generalization are inevitable. There is *never* a question about whether there will be obstacles to overcome—such as the business of "t" and "h" described previously. Never.

Here is why the critics are so quick to dismiss phonics based solely upon a

thorough and accurate description of letter-to-sound relationships: the critics simply don't have an arsenal of knowledge of instruction for overcoming inevitable barriers to generalization. They are clueless. Thus, we get incredibly egocentric statements from critics of phonics, saying in effect, "There are irregularities in phonics, and I personally don't know how to overcome them to ensure that students generalize accurately, and if I don't know how, then I suppose no one knows how, and therefore, I have to conclude that phonics is a poor content approach to beginning reading instruction."

No kidding. Two people look at exactly the same thorough and accurate description of letter-to-sound relationships. One can't figure out how to get around problems, and that one punts. The other is a genius at figuring out ways to get around inevitable obstacles, and does so, and ends up effectively teaching beginning reading, using phonics as the content basis for doing so. The first one isn't even interested in how the second one pulled off such an incredible accomplishment. Basically, the "critics of phonics" (which, as I've said now more than once, doesn't even make sense) give up at the point of *describing the content*. They don't even know what they don't know. They are unaware of even the possibility that someone smarter than they are can effectively deal with all the problems inherent in the content.

Any reader familiar with *DISTAR Reading* and *Reading Mastery* has seen some remarkable, ingenious ways of dealing with a host of challenges that English phonics does, in fact, present. You probably know that those programs initially "regularize" "th" and other digraphs by tying them together and treating them as if they were a single grapheme. The "tie" gradually fades away. The *outcome* is accurate decoding. (The critic seems to hold the belief that *instruction begins with outcomes*, and therefore objects to temporary devices that help students move gradually toward an outcome *at the end*.)

The voiced and unvoiced "th" are relatively easy. Teach the more common of the two, and teach it thoroughly. Then introduce the other, after the first is fully mastered. This is in contrast to the inexplicable "instructional practice" of introducing things like this (or there, they're, and their) all at the same time. The "silent h" in "hour" is just an easier example of the same thing. The "th" in "outhouse" is an example of how morphology interacts with phonemics in English, and how that interaction is represented in print. Technically, the "th" digraph crosses a "morphemic boundary" between "out" and "house." Other examples of "morphemic boundaries" interacting with phonemics in English include situations such as: act + ion = action. When we cut all the jargon, we end up with a way of demonstrating that something that *appears* to be irregular at first blush might not be, if we look a little harder and dig a little deeper.

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Ironically, this "DI approach to analysis" is more critical than the critics. For instance, the critics don't cite potential confusion among d, b, p, and q as "problems with phonics." Because—to understate the facts a bit—the critics tend not to be very instructionally oriented, they can't even identify all the genuine challenges of teaching beginning reading effectively, never mind efficiently.

In a previous "Askance" column, I wrote about poor phonics instruction. Unfortunately, I guess I used a naughty word in the title, and the column got itself published anyway. I'll briefly reiterate what I thought was the central message of that column, and which I think is still a central issue with respect to "phonics."

On one extreme, we have phonics as simply a description of orthography, apart from any instructional considerations. At the other extreme, we have "really good phonics instruction." Although we can look at any instruction analytically and make some fair predictions about effectiveness, the bottom line on "really good phonics instruction" is high beginning reading achievement, and high remedial reading achievement, brought about *efficiently*.

Either analytically speaking or empirically speaking, we have to recognize that somewhere between the extremes is phonics instruction that isn't so hot. I won't say that terrible phonics instruction is worse than whole language, but I will say that poor phonics instruction is probably a greater threat to the long-term health of really good phonics instruction. The unhappy fact is that people aren't that discriminating. If a critic points to poor phonics instruction and rightfully criticizes it, both that critic and whoever listens are more than likely to generalize the criticism to all phonics instruction. That's just a reality.

We can't stop people from jumping on the phonics bandwagon. What we can do, though, is always talk about *phonics instruction*, rather than "*phonics*." That is a strength of *Put Reading First*. It isn't a blanket endorsement of "phonics," divorced from instruction. Although severely limited by space, *Put Phonics First* discriminates among "types" of phonics instruction (synthetic, analytic, embedded, etc.). It emphasizes "explicit systematic"

phonics instruction (in keeping with research findings). We should all make a similar effort, in casual conversations or workshops or speeches or publications, to *avoid* talking about "phonics" as if phonics *per se* was anything more than or less than a description of orthography. Simultaneously, of course, we can advocate "really good, systematic, explicit, phonics instruction." That's really what we mean, anyway.

Perhaps "hotter" than phonics these days is "phonemic awareness." This is a topic that drives me sort of nuts. I suppose I have a predisposition against the label itself. In DI circles, we don't talk much about making kids "aware" of various things. That sounds a lot to me like "exposure" or "covering topics." It's a little on the abstract side. We're interested in outcomes that are a bit more tangible. What can the kids *do*, and is it worth doing? In the most literal sense, it is difficult to imagine anyone without severe sensory difficulties not having some sort of phonemic awareness. The fact that a native speaker behaves differently to "cat" and "cats" is some indication of awareness, if completely subconscious.

Again, *Put Reading First* does a good job of translating an abstraction into actual tasks. The tasks are pretty clear. The rationale for the tasks in general, and some of the specific tasks, is less clear to me. In general, it is said (in *Put Reading First* and elsewhere) that phonemic awareness is a prerequisite to beginning reading, or possibly concomitant with beginning reading, at the *very* beginning.

Here's a question that must come to the mind of every teacher who used *DISTAR Reading* and its successors before phonemic awareness got real popular: if phonemic awareness is a prerequisite to learning to decode, how was I able to teach so many kids to decode without it?

I'm venturing into an area where I have some strong feelings that I couldn't prove (at the moment) if my life depended on it. Having excused myself for being responsible for what I say, here's what I think: *SOME* phonemic awareness tasks are *PROBABLY* desirable but not strictly *NECESSARY* as prerequisites for teaching beginning reading.

The potential usefulness of some phonemic awareness tasks depends completely on the method we're going to use to teach beginning reading. The oral onset–rime types of tasks make some sense *only* if we're using patterns with changing first sounds in our instruction. Otherwise, such tasks would no doubt promote "awareness" in some sense, but there would be no causal chain linking the oral task to reading instruction.

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What about a task like this: I'll say a word, and you tell me the last sound in the word? Sounds sort of good, and phonemic, and seems to promote awareness, but I have to wonder about the causal links that connect this task to the reading instruction. Put another way, when during the reading instruction do we deal with the last sound in a word, and *only* the last sound in a word?

I shouldn't even get started on syllables. I *hate* syllables. They are about as inconsequential in English language and orthography as anything I can think of. (I don't hate syllables in the broad picture: they're pretty useful when teaching a syllabic writing system, such as Japanese.) "Work on syllables" has been around for a long time. Only recently has such useless practice been elevated through a loose association with phonemic awareness.

On the other hand... oral blending. I don't think we *must* teach oral blending as a prerequisite to beginning reading. When blending is a critical part of explicit, systematic phonics instruction, the students learn oral blending as a by-product of the instruction. And oral blending isn't a goal, so I wouldn't get too excited about this particular by-product of good instruction. On the other hand, the causal links from oral blending to blending are clear as a bell. If kids are taught oral blending (well) before they start decoding, can that help? I would think so. My guess is that the blending in the reading program would come about a little easier—and maybe a lot easier for some kids—if the students can already blend orally. But if the kids are going to learn to read anyway, just how much time would be devoted to oral blending prior to reading instruction? My guess is: not too much. If the kids are ready to learn oral blending to mastery, then they're also ready to learn how to read. The biggest question—an empirical one—is how to deal with oral blending and reading the most *efficiently*. In my mind, that's the *only* question.

I seriously doubt that this is an either-or question. Guessing again (and I'll stop saying that now—you know I'm guessing), the most efficient and effective practice might be to begin work on oral blending slightly before reading instruction begins, and then to continue it for a little while in conjunction with reading instruction.[1]

1 Note that *DISTAR Reading* et al. taught a form of "oral blending" from the beginning, wherein kids learned to say things like "icccceee creeeeeam" fast. Yes, ice and cream happen to be syllables, but the activity doesn't "teach syllables." It teaches oral blending.

(This is a freebie for grad students looking for a dissertation topic.)

Amidst all this speculation, we have plenty of extant empirical evidence showing that kids can learn to blend without having first gone through the phonemic awareness variety of phonemic blending. The scientists in us are curious about the possibility of doing anything more effectively but especially more efficiently. But if we're going to tinker with something that isn't broken, we ought to be cautious about it.

What about segmenting? The link between phonemic segmenting and decoding is not as direct as that between oral blending and blending, but there is a link. One way of looking at segmenting is that it is teaching oral blending "backward and forward," which is a lot like saying that we're teaching oral blending really *thoroughly*. The most obvious benefit of segmenting shows up in spelling. Mastery of segmenting does not even begin to *ensure* accurate spelling. Rather, mastery of segmenting reduces the likelihood that a substantial number of "types" of error will occur. For instance, students who can orally segment are less likely to transpose letters that represent sounds in the oral word.

When students listen to individual sounds in *DISTAR Reading* et al. and come up with the word that those sounds comprise, they are orally segmenting. Segmenting and oral blending are very old news in Direct Instruction. They didn't derive initially from an examination of research, but from a rational, logical analysis of what students needed to know in order to reach certain important outcome goals.

Put Reading First makes this statement: "Children who receive instruction that focuses on one or two types of phoneme manipulation make greater gains in reading and spelling than do children who are taught three or more types of manipulation. One possible explanation for this is that children who are taught many different ways to manipulate phonemes may become confused about which type to apply" (p. 7).

The *Put Reading First* document doesn't list types of phonemic manipulation tasks in an order of priority, probably because the authors restricted themselves to findings from the National Reading Panel. My own take has probably emerged: just teach one or two types of phonemic manipulation if you teach oral phonemic manipulation at all, and make oral blending the first priority, and segmentation the second.

Yes, we should "start easy" and work our way along, but that doesn't mean we have to do different tasks that happen to be easier than the tasks we really want to teach. The beginning instruction on oral blending can, of course, be designed to be very easy.

I don't agree with one recommendation from *Put Reading First*, the idea of teaching "easier" types of phonemic manipulation first, then "harder" types later. That advice does sound intuitive, and it might be the best the National Reading Panel could find in empirical studies. Beyond that, though, it doesn't make any sense. "Ease of learning" doesn't have much to say about "usefulness of the tasks." That latter category is all we really care about.

Yes, we should "start easy" and work our way along, but that doesn't mean we have to do different tasks that happen to be easier than the tasks we really want to teach. The beginning instruction on oral blending can, of course, be designed to be *very* easy. Start with a word that just has two sounds. Make them both nonstop sounds. Make sure they are easy to pronounce. (We won't start with "or.") Model the blending. Model it again. Lead students through it. Model it again. Check the students out. Check them out again, a bit later. If we have to, model it again. Lead the kids through it again. Do that as many times as necessary. Don't talk to them about phonemes and the distinctive characteristics of phonemes and allophones and all that stuff someone might talk about during some sort of odd inservice. If they learn to blend that first word "by rote," don't lose any sleep. Do a different word like that. If you started with a vowel–consonant word, switch to a consonant vowel word. Maybe use one sound in common to the two words.

That's easy. Over time, there are numerous ways to make it more difficult—not because we have an *a priori* desire to make things more difficult, but because the outcome for the skill is much more difficult than this. This is not rocket science. This is the relatively easy part of designing instruction. (The hard part was analyzing content for generalization. I've seen Zig Engelmann do that, and it seemed more difficult to me than rocket science. *Lots* of people are rocket scientists.)

In addition to phonics *instruction* and phonemic awareness *instruction*, *Put Reading First* (and the National Reading Panel) focuses on fluency, vocabulary instruction, and comprehension. I won't discuss any of that—now. I've just stayed with phonics, phonics instruction, and phonemic awareness because of the vast, misguided, vitriolic criticism of phonics in general, and the National Reading Panel findings, as summarized and reflected in *Put Reading First*.

If I sound a bit zealous in my defense of certain aspects of phonics instruction, I plead guilty. But I hope no one mistakes that for the almost religious

fanaticism with which too many in the educational community exercise upon the basis of some obscure belief system, incomprehensible not only to people in the DI choir, but, as it is becoming more clear, to a vast number of educated, rational adults outside of the field of education.

I really do have to pinch myself every day. Nonetheless, I guess an unrelenting vein of cynicism runs through me. Will the dream turn into a nightmare at some point? While we're riding high, is there anything we can and should be doing to prevent, or at least, delay a nightmare? If there is, we should take a rest from enjoying the triumphs and spend more time doing and promoting rationalism, first, and the scientific investigation of genuine questions, real inquiry showing empirically far more than we have—despite being at the head of the pack in this area—that what we already have isn't broken, as well as cautious, well reasoned inquiry aimed at broadening our collective knowledge.

In truth, I'm already having nightmares. In the midst of the dream—the *intent* of the No Child Left Behind Act, and movements associated with it—I see a child out there oblivious to all this excitement, someone who isn't benefiting from any of this, someone whose status is far less than that of a pawn in a huge political game. That's the nightmare. And I'm awake. ~~ADI~~

AMY GRIFFIN, Association For Direct Instruction

2002 Excellence in Education Awards

At times it seems the world of education is rife with bad news and negative commentary. Students aren't learning, teachers aren't teaching, political agendas and bureaucracies have priority over effective methodologies, and there is a general disagreement about what really works to teach ALL children.

There are, however, many positive examples of success in schools throughout the country, and each year, the Association for Direct Instruction gets a glimpse of those successes through a call for nominations in the categories of Excellence in Education, The Wayne Carnine Most Improved Student Award, The Wesley Becker Research Award, and The Wesley Becker Excellent School Award. We receive nominations from throughout the country, and the Board of Directors of ADI has the most challenging task of selecting the award recipients. The nominations prove that the work being done in the field with Direct Instruction is indeed fruitful, and they show what is possible when the only agenda one works under is the one that puts students first and ensures that students indeed experience success and learning in the classroom.

What follows is a brief introduction to the Award Recipients of 2002, and some examples of their excellence in the field of education. The Excellent School award appears as a separate article, following this article.

Excellence in Education

Gary Kolumbic, Teaching

Gary Kolumbic

Gary Kolumbic is the Literacy Coach for Eshelman Avenue School in Lomita, California. He is responsible for bringing *Reading Mastery* and other DI curricula to Eshelman school, which eventually led to the school winning a National Title I Distinguished School Award in 2001. Principal of Eshelman, Winnie Washington, shared the genesis of the changes that took place in their school—he went to Eshelman because the principal of his previous school would not allow him to continue to use phonics with his Special Education students. "In the spring of 1992, Gary came into my office seeking to fill a vacant position in an Upper Learning Handicap classroom stating that 'all students can learn' despite the challenges they face and only desired an opportunity to make his vision a reality. That opportunity was immediately provided and Gary became a part of Eshelman the following semester. It wasn't long before his vision became a 'reality' and it became obvious to our staff that his reading program, SRA–*Corrective Reading* was not only providing effective results with his students, but could be proven beneficial for ALL of our students."

The letters of nomination from his colleagues give Gary Kolumbic credit for the turn around Eshelman School has made. The teachers and paraprofessionals are grateful to Gary for his dedication and vision. Gary not only provided the vision of what was possible, but also the time and labor it takes to make implementation a success: managed and secured the private fund grants dedicated to the DI program including the planning, scheduling, and monitoring of teacher training in Eugene, OR; he set up reading classes based on reading ability rather than

age or grade; established an orderly and easily maintained schoolwide reporting system that each week tracks the reading progress of every child; and oversees the remedial program that provides extra reading instruction for any child that drops below expected performance level.

The following words by teacher Christian Mendez echo what many others feel about the contributions of Gary Kolumbic to Eshelman School. "Gary works tirelessly to ensure that the schoolwide reading program runs smoothly and effectively. Mr. Kolumbic is always available to help teachers in any way he can. Gary has demonstrated and shared with me more effective teaching techniques. He has assisted me with properly grouping students by testing them to find their individual reading levels. Whenever a student is having a difficult time, Gary is there to give advice and suggestions to help that student. Gary is not only an outstanding Reading Coordinator, but an inspiring role model to the students and teachers he works with."

David Parr, Teaching

One thing that stands out about the nomination packet for David Parr is that each of the nomination letters was written by parents who are affiliated with the School Site Council (SSC) or the Parent, Teacher, Student Association (PTSA) of Presidio Middle School in San Francisco. David is a teacher at Presidio Middle School. It seems that a majority of support for his use of DI comes not from within the district administration, but from the parents, the SSC, and the PTSA. Boots Whitmer, one of David's nominators, provided this rationale, "He deserves this award not only because of his teaching skill and dedication to his students' success, but because he has steadfastly refused to use curricula inferior to Direct Instruction despite intense pressure from the unenlightened San Francisco Unified School District."

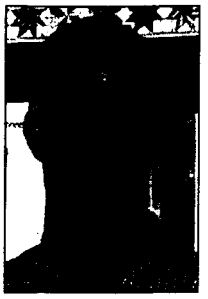
The letters describe David Parr as totally dedicated to improving the school and the performance of his students, and giving quite liberally of his time for after school tutoring, parent meetings, and PTSA meetings. In 1999 Presidio Middle School received an Academic Performance Award from the State of California for improvement in STAR9 test scores. While regular performing students retained their status or made slight gains, the most underperforming students made major strides. The SSC realized it was the work of David Parr that had made those gains possible. Mr. Parr described his first introduction to Direct Instruction as life changing, and has since continued to used DI in his classroom despite refusal by other teachers to engage the program and pressure from within the school system to eliminate the use of DI.

Colleagues have viewed the student successes as "one-trick wonders" or "flukes" even though the gains are consistent. Others are beginning to take notice though, and are interested in replicating success. At a meeting earlier this year, an Instructional Reform Facilitator from one of the district's lowest performing schools took note of Mr. Parr's track record and after classroom visits, that underperforming school will have six DI classes this school year.

And true to the Direct Instruction philosophy, Boots Whitmer closed her letter with these words, "If the judges of this award see fit to bestow it on Mr. Parr, the prestige of this award will give him the additional ammunition and credibility to see that Direct Instruction gets greater use in the San Francisco Unified School District. The real winners, then, will be our students, and that is the way he would want it!"

Maggie Hanohano, Staff Development

Maggie Hanohano is the Reading Coordinator for the Pihana Na Mamo Project of Hawaii. From the many letters in support of the nomination of Maggie, it is apparent that her efforts and dedication to improving the academic performance of Hawaii's students have truly made a significant difference in not only the educational community, but for entire communities. As Dr. Gloria Kishi stated in her letter, "Maggie has been crucial in supporting Hawaii's schools in their implementation of sound, research-based programs in the area of reading. Because of her efforts, Hawaii is beginning to see improved results in reading."



David Parr

Maggie Hanohano

Maggie's has brought DI trainers and curriculum developers to Hawaii, and as Dr. Kishi wrote, "Her vision has also led to the development of a core of local, Hawaii-born and raised Direct Instruction trainers and coaches whose skills and knowledge have led to over 40 schools in Hawaii implementing Direct Instruction programs and strategies. This work is being done in some of the most challenging of schools where long-term failure in reading achievement had often led to discouraged and disheartened teachers, families, and administrators. Several of these schools are now becoming beacons for other schools, with teachers, administrators, families and students renewed and reenergized by their successes." Of course, all this is accomplished through an unwavering dedication to doing what's right regardless of the amount of hours required to make the mission a success.

Maggie ensures that schools and personnel receive adequate staff development, funding, training, and curriculum services, enabling schools statewide to implement Direct

Instruction with the required fidelity. Maggie Hanohano is a model of total dedication to her profession and to the lives she impacts through her work. Kathleen Dowd shared these words regarding Maggie, "Without Ms. Hanohano's vision, dedication, and bravery in promoting Direct Instruction strategies and programs, many of Hawaii's schools would not have coherent plans for reading instruction and would not attain their reading goals. This is truly a case where one person made a difference for students, families, teachers, schools, communities, and our state."

Kip Orloff, Staff Development

The letters of support for Kip's acknowledgement of Excellence in Education tell a story of a woman who diligently works with the only goal in mind of all students learning and the goals that are inherent in that process: of inciting excitement in teacher's to embrace a particular curriculum that they may not want, of acting as a partner to schools to reach their goals, and of knowing what works so that children learn and not stopping until each person involved is fulfilling their role. Kip is an Educational Consultant who has been involved with DI for over 30 years. In the 21 letters that were written to support Kip, the theme in each of the letters is that Kip works selflessly, truly understands DI curriculum and how to teach others so they also understand, is totally knowledgeable, professional, sincere, and an inspiration to many.

I will let the words of those who know and have worked with Kip describe the impact she has had on their lives and the schools in which she's worked.

"Kip Orloff is a terrific Direct Instruction consultant. Add to that fact she is a warm and wonderful person, and you have qualities of someone who can accomplish good things in schools. It has been my privilege to work with Kip in a variety of settings, including teacher training workshops and implementations in schools. Kip is methodical in any effort she undertakes. She is meticulous about the details of training, such as the wording of formats, steps in exercises, correction procedures, and the sequence of training events. In implementations at schools, she attends carefully to the endless details that are necessary for a school to be successful."—Dr. Gary Johnson, Co-Author, Independent Consultant

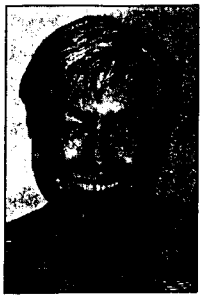
"Kip entered into a difficult and challenging situation when she arrived at Lindbergh. She brought with her a loving and caring spirit that understood the challenges we faced. She saw through the years of academic struggles and disappointments that teachers faced year after year, the new teacher's challenges, and the district's failure to clearly state its role and position in the DI process. She was able to create a vision (the big picture) and capture the sincere concerns and desires of the teachers to provide a curriculum that would ensure student mastery and achievement."—Katherine Brown, Charles A. Lindbergh Elementary

"Kip firmly believes that poor and minority children will achieve at the same high levels as other students *if* they are taught at those levels. In other words, high expectations coupled with good schools and good teachers really do make a difference."—Therese Snyder, Educational Consultant

Dr. Benjamin Lignugaris/Kraft, University Teaching and Research

A crucial role in the education of children is the education that teachers receive in preparation for the classroom.

Dr. Lignugaris/Kraft is a professor in the College of Special Education and Rehabilitation at Utah State University. He teaches courses on effective instruction, conducts research on teaching and teacher preparation, and coordinates the Direct Instruction reading and language arts practicum. He has also written numerous chapters and refereed journal articles, and provided workshops and presentations with the focus of effective instruction for students with disabilities. Dr. Terry Miller of Idaho State University provided this rationale, "Dr. Lignugaris/Kraft's high educational standards and his dedication to effective instruction for all students are an inspiration to his university students and fellow colleagues. His research and work in teacher education, collaborations with educators across the country, and involvement with parent education programs promote and sustain the use of Direct Instruction and other research-based practices in public schools."



Kip Orloff

Dr. Benjamin Lignugaris/Kraft

Dr. Marion Tso of Eastern Washington University affirms the depth of quality under which Dr. Lignugaris/Kraft operates. "One of the most important things I learned from Dr. Lignugaris/Kraft was to always move a step further than what was required. Ask questions, find the answers, and ask more questions. This is the process that keeps education moving in a positive direction. I now teach at the university level. I use strategies that I learned from Dr. Lignugaris/Kraft. My hope is that I can teach these strategies to university students so that they in turn will use them to teach the many children they will be responsible for in their teaching careers. Thus, the education of more and more children continues to improve because of the contributions of Dr. Lignugaris/Kraft."

Don Stenhoff, a graduate research assistant at Utah State described some attributes of working with Dr.

Lignugaris/Kraft as a mentor, such as his advocacy for the students with whom he works, the opportunity he provides for students to teach and work with him in classes, the succinctness of his writing and guidance he provides for students, and the overall thoroughness of his approach to teaching. "As a major professor, Ben models several aspects that are desired in a mentor. One quality is Ben's passion for research. During student research studies, Ben guides students through the necessary steps in understanding the logic of design and implementation of a study. He meets frequently with his students and spends the time needed in order to understand outcome measures. There were several times that he and I met at 7:30 in the morning to discuss the data collected during the week. Though busy with several other responsibilities we would sit at the table until all aspects of the data were looked at and analyzed and a direction for the coming week was decided. These sessions also served as a learning experience for me. Ben would discuss out loud the process he used to analyze the data. As the study progressed that discussion was shifted to me and we both conversed about the analysis of the data."

The picture painted of Dr. Lignugaris/Kraft by those who supported his nomination is one of determination and admiration. They made it apparent that he operates under strict guidelines of quality and excellence.

Dr. Cathy Watkins, University Teaching and Staff Development

Dr. Cathy Watkins is a professor of special education at California State University, Stanislaus and the Director of the Center for Direct Instruction at the university. In a letter of support for Cathy, Frank Smith and Linda Youngmayr said that, "Dr. Watkins is both an academician and a practitioner. She works tirelessly in the name of educational success for all students. Direct Instruction is lucky to have her as its advocate, as she has stayed the course, through many educational trends, relentlessly promoting the use of research validated educational practices and programs." From the letters by those who have worked with Cathy, her dedication to effective instruction on many levels is apparent. She not only promotes effective tools to the students she teaches at the university level, but she also goes into the field and consults and trains in schools desiring a Direct Instruction implementation.

Kenneth Stangl shared this experience of working with Cathy in the field.

"Dr. Cathy Watkins is the best partner in education that Keyes Elementary School has ever had.

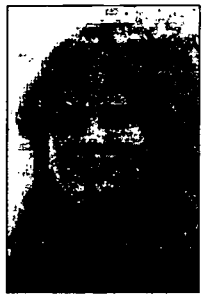
"While serving at Keyes Elementary School as principal, I was introduced to Dr. Watkins by a county schools administrator who knew that I was interested in implementing a Direct Instruction reading program. She systematically and patiently explained the pros and cons of a schoolwide implementation to the superintendent and me. She prepared and presented a presentation to the school board using researched based data. She cautioned the school board that the board's support and the support of the administration are crucial to the success of the program. Once she was convinced that the district was committed to providing the support, the staff training, and the materials for effective implementation, she agreed to coordinate our implementation.

"Unlike other consultants that I have worked with, Dr. Watkins did not limit herself to one-day workshops and phone conversations. She immediately became a presence on the school campus. She coordinated trainings, ordered materials, helped with assessment and set up the student groups with their teachers for the fall." Stangl continues with an account of her presence in the school in the fall modeling lessons, coordinating testing and placement, and working with the teachers and administration through the implementation process.

This particular scenario is highlighted here to show the range of work that Cathy does. In the letters written on behalf of Dr. Watkins, her work at the university is equally in-depth.

Dr. Cathy Watkins

These words were written in the rationale for Cathy's nomination, "Finally, when all the documentation is examined as a whole, it is clear that Dr. Watkins considers her work to be more than just a glorified vocation. Her dedication to the education of all students is clear. She produces the extra effort that can only occur when an individual sees a greater purpose to her work. Ultimately, this is the most compelling evidence supporting her nomination."



Brittany Dale Martin

Wayne Carnine Student Improvement Award

The Wayne Carnine Student Improvement award is granted to nominated students who have shown improvement academically, behaviorally, or a combination thereof. The students receive a cash reward for their accomplishments.

Brittany Dale Martin

The winner of this year's award is Brittany Dale Martin from the Roger Bacon Academy in Leland, North Carolina. Brittany is under the custody of her grandparents, who enrolled her in the Roger Bacon Academy with academics as the top priority. Brittany enrolled in the Academy as a second grader, testing into *Reading Mastery I*, lesson 11. She knew her sounds, but her reading was below grade level. Brittany fast tracked through *Reading Mastery I* and finished second grade at *Reading Mastery II*, lesson 130. In third

grade, Brittany placed into *Horizons C/D*. In March of this year, Brittany was in *Horizons C/D*, lesson 105 and passed the *Reading Mastery V* placement test. She will enter fourth grade in *Reading Mastery V.*

In North Carolina, third-grade students are required to take the North Carolina Department of Public Instruction End-of-Grade test. At the beginning of third grade, students are given a pre-EOG test, and students scoring at III or IV demonstrate mastery of subject matter and skills that indicate they are prepared to do third-grade work. Brittany scored at achievement level IV. She scored at or above 90% of students in North Carolina who took this test.

Amidst this success, at one point Brittany's grandparents were forced to move from Leland and moved to a location that placed them 45 minutes away from the Academy, one way. Because Brittany was experiencing so much success and the excitement and confidence that went with her accomplishments, her grandparents drove Brittany and her sister to the Academy everyday, nonetheless. Mark Cramer, Headmaster of the Roger Bacon Academy commented that, "With the proper teaching techniques and the use of Direct Instruction *Reading Mastery*, Brittany blossomed. Once Brittany learned to read there was no stopping her. Brittany gained the self-confidence she needed to be successful. With her acceleration in reading this only boosted Brittany to excel in all subject areas. She gained a love for reading and a love for school." "Throughout the summer Brittany attended the local Library Reading Program. At the end of the program Brittany received an award for reading the most books. In only four weeks Brittany had read 150 books."

Daniel Shea

Daniel Shea is a runner-up for the Student Improvement Award. Daniel is a student at Martin Kellogg Middle School in Newington, Connecticut. Dr. Christopher Banach, a special education teacher at Kellogg who nominated Daniel, said Daniel's reading ability had plateaued by seventh grade. Dr. Banach attended a presentation of SRA reading materials and he began a pilot program with a small group of identified special education students using *Corrective Reading*. He began instruction in January 2001. Dr. Banach stated that the students were pleased with the program and made rapid progress.

In the fall of each year, Connecticut students are tested with the Connecticut Mastery Test. One component of the test is the Degree of Reading Powers (DRP). In the fall of his seventh-grade year Daniel's DRP score was 29. Four months later he was retested and his score was 39. Dr. Banach stated that, "Typical gain scores for students with a full year of instruction average between 3 to 5 more points but Danny gained 10 points with just 4 months of instruction."

Dr. Banach's words describe the profound changes that can occur when a student begins to experience something different—success. "While numbers in terms of scores are an important measure of progress or lack of same, what is of paramount importance is the transformational effect of Direct Instruction's impact on Danny's sense of well being. Danny no longer has behavioral episodes of complaining about school, stating a desire to quit school or questioning the worth of attending school. Instead he has demonstrated more initiative, competency and most importantly a strong sense of self-satisfaction with his new found ability to read."

Patrick Vinson

Patrick Vinson of Brentwood High School in Brentwood, Tennessee is also a runner-up for the Student Improvement Award. Patrick's mother, Linda Vinson, a former Direct Instruction teacher, nominated Patrick. Patrick was adopted at birth and over the years has been diagnosed with a variety of disabilities—Fetal Alcohol Effects, Traumatic Brain Injury (damage to the brain stem), Bell's palsy, Learning Disabled, and Mentally Handicapped. His mother said, "At points in Patrick's 17 years, all of the above labels have academically and behaviorally described Patrick. What those labels do not describe is the real Patrick!"

Daniel Shea

Patrick Vinson

In her letter, Linda described some of Patrick's struggles to accomplish tasks that often come easily to others, such as crawling, sitting, talking, and learning. At one time Patrick was enrolled in a special education program that utilized the whole language approach. His mother eventually moved him to the school where she taught, which utilized DI. "Not only did he achieve, he excelled!" Linda credits the use of *Reading Mastery, Corrective Reading,* and *Language for Learning* as the programs that differentiate her son's experience from the "countless other Special Education students who have not had the privilege of Direct Instruction programs."

Linda provided the following achievement information. He will enter the 12th grade in August 2002. "His current classification is 'Other Health Impairments,' and he is served in regular education classes, as well as special education classes. His current IQ is a full scale 69. Before moving from Florida, he passed the 'Florida Writes' test and has a documented 11th grade reading level. At Brentwood High School Patrick is enrolled in 11th Grade English, Pre-Algebra, Work Study, Innovations and Inventions and resource special education classes. Along with his classes, he works at a

bagel shop for on-the-job training. He has passed the required TCAP in reading, and is working to pass the TCAP in math. When he passes the TCAP Math, Patrick will graduate with a regular diploma. You have to admit, this is pretty remarkable for a young man who the doctors, psychologists, neurologists, behavioralists, and many teachers all said he would not learn to read, write, compute or, for that matter, walk or talk."

Wesley Becker Research Award

The Research Award went to lead author Gregory J. Benner from the University of Nebraska, Lincoln. Contributing authors were Alexandra Trout, Philip D. Nordness, J. Ron Nelson, and Michael Epstein from the University of Nebraska, Lincoln, and Maria-Louisa Knobel, Alice Epstein, Ken Macguire, and Rodney Birdsell from Beatrice Public Schools. Their paper is entitled, "The Effects of the *Language for Learning* Program on Receptive Language Skills of Kindergarten Children." The study assesses the effects of the *Language for Learning* program on the receptive language skills of a general sample of kindergarten children, and the results indicate that *Language for Learning* produced both statistically and educationally significant effects on the receptive language skills of children. The full text appears in the *Journal of Direct Instruction, Vol. 2, No. 2, Summer 2002, pp. 67–74* or is available online at www.adihome.org.

Gregory J. Benner

Beacons of light in the sometimes dim world of education—light that others can follow. The aforementioned individuals represent a spectrum of experiences that of themselves indicate the validity of Direct Instruction. Perhaps these brief summaries provide a morale booster for those already engaged in the battle for effective instructional tools, and as a bit of proof for those who are not only speculative about DI, but those who adamantly oppose it. The Association thanks those who answered the call for nominations for sharing a part of these lives, and we congratulate the recipients. ADI

KIP ORLOFF and THERESE SNYDER

2002 Excellent School Award

Eshelman Avenue Elementary: A Profile of Success

"Come to the edge," he said.
They said, "We are afraid."
"Come to the edge," he said.
They came.
He pushed them
And they flew.

–Guillaume Apollinaire

What is the genesis of change? Is there a catalytic event, a need, a leader who generates action, an opportunity for risk-taking, timeliness, or a person of vision who sees what is possible? Perhaps all of these elements make for change and help to produce events that forever affect lives.

The School Community

The lives that are forever changed are the ones that are part of Eshelman Avenue Elementary School in Lomita, California. This successful school sits in the middle of an urban commercial area with a diverse and densely populated neighborhood not far from Lomita Naval Station. Lomita has an ever-changing population of immigrants from Mexico, Central and South America, Asia, the Middle East, and Africa. Like most of the schools in the Los Angeles Unified School District, the majority of the 726 students attending Eshelman are Hispanic. There are eight additional languages spoken at the school which finds 24% of the student body classified as English Language Learners (ELL). The majority of the students come from low-income disadvantaged families with 73% of them qualifying for free and reduced lunch.

Eshelman began to see a need for change in 1996 when the academic scores had gradually begun to decline. A Special Education Teacher Trainer for LAUSD had been including Direct Instruction curriculum training as part of the staff development for all Special Education teachers new to the district.

SRA provided training and one of the teachers participating was Mr. Gary Kolumbic. Gary began using *Corrective Reading* with his Special Day Class (SDC) at Eshelman. Gary, a caring, thorough, and committed teacher became enthusiastic about the success he achieved with his students. His success generated interest in

using additional Direct Instruction programs to address the academic decline at the school. SRA agreed to supply materials for an extensive pilot. Winnie Washington, the principal, was ready for a challenge and a change, and perhaps a little competition with the surrounding schools in District K of LAUSD. Dr. Richard Vladovic, superintendent of District K is quoted as saying, "Winnie sometimes doesn't ask, she just does." Eshelman, with Winnie's leadership, had become a LEARN school which means that teachers, parents, and community members share the decision-making process for the school. A "school family" was created with a clear academic mission where the faculty took ownership and pride in their work and the school. Dr. Vladovic recalls that Winnie told him, "Give us time and we will deliver." The plan for change had begun.

Looking at Accomplishments

Beginning in 1998 and over the course of the past 5 years, Eshelman has remained focused on its academic mission. The school has benefited financially from consistently meeting and surpassing the California API (Academic Performance Indicator) goals set by the state. The API is used to compare schools to each other and to gauge each school's improvement. In 1999, the State of California began to rank schools within the state based on the school's API using a scale from 1 to 10. A rank of 10, for example, means that the school's API fell into the top 10% of all schools in the state based on the SAT 9 tests taken by California students. In 1999 Eshelman was ranked 4 compared with all California schools and 6 when compared with schools with similar demographic profiles. In 2001, Eshelman was ranked 6 compared with all California schools and 9 when compared with schools of similar demographics.

The rise in student achievement has been documented on national norm-referenced assessments as well as state-specific assessments. The SAT 9 data from 1998 to 2001 indicate that student achievement scores in reading, language, spelling, and math have made impressive increases. In 1998 only 18% of the fourth graders were at or above the national average in reading. In 2001–2002 54% of the fourth graders are performing above the national average, 7 points ahead of the state average and 25 points ahead of Los Angeles Unified fourth grade average.

Whether comparing grade level growth or looking at groups of students moving from grade to grade, the achievement is impressive. Equally impressive are the scores at Eshelman in comparison to scores in Los Angeles Unified (LAUSD), Los Angeles County (LAC—this includes hundreds of school districts that are not part of LAUSD), and the State of California. In 2001 Eshelman students outperformed average scores in LAUSD, LAC, and in California in reading and language in Grades 1 through 4. Grade 5 outperformed LAUSD and LAC and fell just below the average in California.

In addition to having great pride in student achievement, the teachers in the "Eshelman family" have benefited from Direct Instruction. They have gained insights into the use of powerful DI strategies to enhance daily instruction. They have learned to align students to the correct programs, teach students to mastery, analyze student performance, and make data-driven decisions. Joanne Vegher, a Kindergarten teacher, expressed reservations about a script stifling her creativity and undermining her ability to adjust instruction to her pupils' needs. Mrs. Vegher now believes completely in *Language for Learning* and *Reading Mastery*. "It has structure but within that structure there is a great deal of flexibility," and "If children need to move up or down, its easy to move them gracefully," she declares. Teachers report that they are energized for work each day and that working together on a clear academic mission has enhanced their professional development.

In the past few years this school has increased student achievement, refined instructional teaching strategies, greatly reduced student misbehavior, and been recognized for success. Newspaper articles in the *Los Angeles Times* and the community newspaper, *The Daily Breeze* have praised the school for its academic achievements and for the individuality of the curriculum choices they have made to assure student success. This school is the only school in LAUSD using DI as the instructional curriculum for all students.

In the spring of 2002, the school was notified that it would be recognized as one of California's Title I Achieving Schools. Soon after, it was announced that Eshelman was selected as a national Title I Distinguished Schools Award winner! Change can be a very good thing!

How They Did It!

Change is integral to the continuing success of the school and the expanding vision for excellence. Much of the success at Eshelman is due to key elements of the DI implementation design, including a full-time literacy

Stanford 9 Test Scores:

Reading

Gr.	1998	1999	2000	2001
1	36	34	56	77
2	30	35	38	56
3	34	36	48	52
4	23	37	37	58
5	38	31	46	41

Language

Gr.	1998	1999	2000	2001
1	32	31	40	64
2	28	35	36	56
3	37	44	58	61
4	32	47	49	63
5	39	33	48	56

coach, development of a coaching cadre, consistent monitoring of student progress, grade-level collaboration, and administrative support. Under the strong leadership of Mrs. Washington, and the Literacy Coach, Mr. Kolumbic, the teachers have received intensive and consistent inservice training, classroom coaching, and follow-up advanced DI workshops. Block scheduling, homogeneous grouping, small-group instruction, adequate time allocated, pacing schedules, and performance benchmarks were set.

Direct Instruction Training

The implementation grew from Mr. Kolumbic's *Corrective Reading* experiences with his SDC students. SRA provided initial training for the school with limited follow-up during the pilot. Los Angeles County developed an Applied Research Program with the help of Doug Carnine and Jerry Silbert. The schools were to use a research-based curriculum. Since Eshelman was currently using DI curriculum and had expanded the pilot to include all the staff, they chose to be an ARP school. Los Angeles County Office of Education (LACOE) provided support to the school with off-site training, technical assistance, and consulting services. Mrs. Washington, Mr. Kolumbic, and many of the teachers have attended the DI Conferences in Eugene. Staff members have visited other DI schools in California and Wesley Elementary School in Houston, Texas.

Maximized Resources

With a change in administration at LACOE, the ARP was dropped and Eshelman applied for and received two grants from private foundations. These grants enabled the school to plan for consulting services on a regular and expanded basis. The school draws on a variety of resources to support the implementation, including Federal Title I funding, state and local funds, grants and private funds, and services from parents and community volunteers. The school allocated resources for training instructional assistants in DI so that they could deliver instruction to small groups of children under the supervision of teachers. These assistants are included in the systematic, on-going training and coaching support at the school.

Site-Based Management

The first step taken to increase its internal capacity for change was the move to become a LEARN school which focuses on greater site-based management and shared decision-making. To facilitate communication, collaboration, and coordination throughout the school, a Literacy Coach position was created for Gary Kolumbic. He facilitates the use of DI curriculum, monitors program and instructional quality, manages materials, monitors student progress, administers tests to students, and works with ancillary people in the school. Gary and the coaching cadre provide support across three tracks to all grades at this year-round school.

Much of the success at Eshelman is due to key elements of the DI implementation design, including a full-time literacy coach, development of a coaching cadre, consistent monitoring of student progress, grade-level collaboration, and administrative support.

Professional Development

Prior to the DI implementation, the predominant method of staff development at Eshelman was listening to a featured speaker at a short one-day workshop. Topics covered did not necessarily relate to actual instructional activities taking place in the classroom or to the needs of the students and teachers. When California implemented class-size reduction, there was an influx of teachers having no teaching experience, no student teaching, and limited college classes dealing with educational methods or curriculum. DI training assisted new staff members in learning how to be effective reading and language teachers. The staff has elevated their skills and teaching expertise to expect mastery learning to occur. Initial training, in-class coaching, extensive on-going inservice, and development of supportive and coordinated activities to reinforce reading and language lessons has added power to the excellent instructional delivery of the DI lessons. Now teachers exchange ideas and share information with one another and apply new solutions to identified problems.

Now that the school has built an internal structure, the staff is developing the expertise necessary to become self-sustaining. For external assistance Eshelman has relied primarily on DI consultants.

Parent and Community Collaboration

The "school family" works with the "home families" by including them in the decision-making process for the school. The parents are informed about the DI curriculum, grading process, student progress, school management, and the vision for the school. Mr. Kolumbic has held parent education classes which teach parents how to be effective using *Teaching Your Child to Read in 100 Easy Lessons*. Community volunteers serve in the school and private foundations and community service groups lend financial and material support.

How Success is Maintained

The consistent collection of data assists the teachers in evaluating student progress and mastery. The focus on student mastery, weekly lesson progress charts, and continuous progress monitoring helps Mr. Kolumbic, the coaches,

consultants, and the teachers keep the mission on track!

Additionally, five specific practices support the school's success:

- articulation and maintenance of a clear vision that the staff carries out,
- goal setting in line with the vision,
- allocation of adequate instructional time and resources,
- providing time for on-going professional development, and
- flexibility and openness to change.

Change has enveloped this successful school and has been encouraging to everyone involved. Fear and trepidation have been replaced with confidence and skill. They were given the time by LAUSD, and they did deliver indeed!

The teacher said to the students,
"Come to the edge."
They replied, "We might fall..."
The teacher said again, "Come to the edge."
And they replied, "It's too high."
"Come to the edge!" the teacher demanded.
And they came... and she pushed them...
And they flew!

From: Eshelman Avenue Procedural Manual
With thanks from Wesley Elementary School ADL

CARRIE AMBERGE, University of Florida

When Direct Instruction "Doesn't Work"

"The Direct Instruction creed is **if the student has not learned, the teacher has not taught**" (Adams & Engelmann, 1996). The methodology behind Direct Instruction is to provide a sequence of skills to all students in an accelerated manner, through the teaching of generalizations. As a beginning teacher, I have found it very difficult to gain respect as a competent educator among those who are more experienced. A hierarchy exists, and as a graduate student, I have realized and come to accept my position at the bottom. At the same time, I know that I, too, have a voice and experiences to support it. I have become quite the advocate for Direct Instruction because I *know* it works, I have *seen* it work, and I understand *why* it works. My frustration has grown immensely because I see so many of these experienced teachers use Direct Instruction incorrectly, altering the possibility of amazingly successful outcomes.

A complete set of *Reading Mastery* books sits on a shelf in a teacher's office collecting dust in a D-rated school. "They tried those last year and they didn't work." This same teacher picks up a *Corrective Reading* book on occasion and randomly selects a portion of a lesson as a "fun activity," disregarding the intent and function of the program.

Two third-grade males are working together on the same *Corrective Reading* level. The first student is able to read approximately 120 correct words per minute. The second student reads approximately 50 correct words per minute. The teacher explains that the second student has no phonological awareness, yet she does not understand why he is constantly frustrated and gives up while attempting to complete the lessons in a book that does not address his specific needs or appropriate level. The first student is bored and reads ahead instead of working at his peer's slower pace. Neither of the students was given a placement test, and the teacher is unaware of what programs were used with these students the previous year.

Another teacher says, "We don't have time to repeat sections when students make two or more errors. They make so many mistakes; it would take forever to complete one lesson!" This teacher was also surprised when she saw how well my student was doing in the same math program she was using in her classroom.

One teacher's philosophy on Direct Instruction is, "I've been doing this long enough, so I know which parts are good and what doesn't work. I just do it the way I want to, and ignore the script." She has not established any rules and does not use specific praise to build on the students' self-esteem as learners. For these reasons, the students are rarely on-task and have no desire to learn. The same teacher gets frustrated with the students, and does not understand why they perform poorly on the mastery tests.

To reiterate, Direct Instruction truly doesn't work when:

1. The students are not given placement tests to determine the appropriate program and level.
2. It is not used consistently in the order presented.
3. The teacher does not repeat a section until the students are firm.

4. The teacher alters the program, and chooses not to follow the script.
5. The students are not given specific praise to build their confidence in their own abilities.

One of the largest educational studies ever conducted by the Department of Education is known as Project Follow Through. It began in 1968 and was completed in 1976. Costing almost $60 million, the study examined 79,000 children in over 180 communities. The purpose of this research was to analyze which teaching methods worked best with disadvantaged children in the areas of basic skills, higher-order thinking skills, and self-esteem as learners, which are known as the affective results (Lindsay, 2001). Direct Instruction was consistently proven to be most effective in all three areas.

Direct Instruction works when:

1. Children are placed into a program at their performance level.
2. The teacher establishes a positive learning environment with clearly defined rules.
3. The teacher follows the program's script, uses appropriate signals, and repeats items until firm (at least 80% mastery).
4. The students are given specific positive praise, building on their strengths and motivating them to succeed.

As a young teacher, I tend to be idealistic. I believe that through teaching, I can change the world. When presented with a new curriculum, every teacher is a skeptic. The first time I went to a training seminar, I was very hesitant to accept this unfamiliar teaching method. What people do not seem to understand is that using a script does not mean losing your own voice. The writers have already discovered scientifically the natural progression of skills being taught. The script allows you to concentrate on *how* you are presenting the material, and focus more on the students and giving them the support they need. For educators, the most important thing to understand is that Direct Instruction works for a reason. All of the intricacies within the program serve a purpose, and it is understanding that purpose that makes a strong Direct Instruction teacher. It is not questioning the validity of the program, but instead questioning our own teaching practices to ensure that all students are learning to their fullest potential. ADI

References

Adams, G., & Engelmann, S. (1996). *Research on Direct Instruction: 25 years beyond DISTAR.* Seattle, WA: Educational Achievement Systems.

Lindsay, J. (2001). Direct Instruction: The most successful teaching model. Retrieved November 25, 2001, from http://www.jefflindsay.com/EdcuData.shtml

MARTIN A. KOZLOFF, University of North Carolina, Wilmington

Rhetoric and Revolution: Kenneth Goodman's "Psycholinguistic Guessing Game"

Introduction

Promoters and teachers of whole language argue that:

1. Whole language is more effective than other forms of reading instruction.
2. This alleged superiority reflects specific features of whole language; e.g.,
   a. "Implicit" instruction that is less focused on precise learning objectives, involves less teacher direction, and requires students to construct knowledge of phonic and spelling rules (Goodman, 1986).
   b. Much instruction on specific skills (e.g., phonics) is given as needed, during mini-lessons.
   c. There is an emphasis on learning in what are called "authentic contexts"; e.g., learning phonics (which sounds go with which letters) and vocabulary during independent reading and when watching and listening to the teacher read books (Smith, 1985).
3. These design features flow from a more adequate understanding of language and reading (Daniels, Zemelman, & Bizar, 2000; Powell & Hornsby, 1993).

Recent research on reading and assessments of whole language challenge the claim of greater effectiveness. Specifically,

1. Controlled longitudinal experimental research shows that instruction on phonemic awareness, decoding,

reading fluency, spelling, and comprehension that focuses on specific skills, involves explicit communication of rules and strategies by the teacher, is precisely and logically sequenced, and provides systematic distributed practice is reliably superior for a wider range of students than implicit (less focused) instruction that requires students to construct their own knowledge (Fletcher & Lyon, 1998; Foorman, Francis, Fletcher, Schatschneider, & Mehta, 1998; Gough, 1993; Liberman, 1999; National Reading Panel, 2000).

2. Evaluation research at state and county levels shows that achievement of students taught with whole language and Reading Recovery—the remedial branch of whole language—is not as high as claimed by whole language proponents and is less reliably effective than instruction provided by field tested curricula involving focused, teacher-directed instruction (Chapman, Tunmer, & Prochnow, 1999; Heibert, 1995; Moats, 2000; San Diego Unified School District, 1999; Stahl, McKenna, & Pagnucco, 1994).

It is important as well to examine the conceptual apparatus of whole language. What assumptions are made? How is reading understood? How are methods of assessment and instruction derived from the conceptualization of reading? If the assumptions and/or conceptualization of reading are flawed, then whole language assessment and instruction derived from a flawed foundation are likely themselves to be flawed. If so, this may help to explain the (at best) uneven effectiveness of whole language.

Goodman's Guessing Game

Whole language proponents cite Kenneth Goodman's 1967 paper ("Reading: A psycholinguistic guessing game") as one of the first in their canon—the paper that fostered the whole language movement, or revolution (Goodman, 1976) and continues to guide and legitimize whole language activities (Pappas & Pettegrew, 1998). Goodman clearly saw the paper the same way—as offering "a more viable scientific alternative" to what he dubbed "preexisting, naive, common sense notions" about reading that "interfere with the application of modern scientific concepts of language and thought to research on reading" (Goodman, 1967, p. 126). Let us take Goodman at his word. Let us examine

If the assumptions and/or conceptualization of reading are flawed, then whole language assessment and instruction derived from a flawed foundation are likely themselves to be flawed.

his "more viable scientific alternative" to see how he crafted a new foundation for reading research and instruction; to determine whether it satisfies the criteria for a viable or even scientific alternative; and to understand better how his ideas were so easily accepted and spawned the whole language movement.

In simplest terms, Goodman presents a conception of reading as a guessing game. He provides no logical, empirical, or commonsensical support for this conception. He then presents a highly selective set of passage misreadings by a child. These misreadings are not called errors; they are "miscues." These misreadings are interpreted in a way that fits Goodman's guessing-game formulation (although other interpretations—from the phonic and word centered approaches he disparages—are more obvious and reasonable). Goodman then uses the misreading examples as verification of his conception of reading—although the only credible use of the examples would be a demonstration that it is possible to interpret misreadings that way. The paper ends by suggesting that the implication for instruction is teaching children to play the guessing game more skillfully. Following is a closer examination of the logical structure of Goodman's paper.

The Opening Gambit

Goodman's paper begins with a common rhetorical device—**caricature of a self-created adversary**. Specifically, he creates a binary opposition of then current conceptions of reading and their associated methods of teaching: "phonic centered" and "word centered." He reduces these approaches to a few statements that would lead readers to agree with Goodman that these conceptions are simplistic and must be wrong. For example,

> ...the common sense notion I seek here to refute is this: 'Reading is a precise process. It involves exact, detailed, sequential perception and identification of letters, words, spelling patterns and larger language units.' In phonic centered approaches to reading, the preoccupation is with precise letter identification. In word centered approaches, the focus is on word identification... (p. 126).

Goodman then writes, "In place of this misconception, I offer this..." —his allegedly "more viable scientific alternative" foreshadowed in the paper's abstract.

Note the artful way that Goodman sets up the reader.

1. He labels the phonic and word centered approaches "common sense notions," despite the great deal of

scientific research done in support of each one—especially the approach that advocated teaching phonics in a systematic way during beginning reading. Yet, he does not cite this research or even hint that there was any. These approaches are not presented as bodies of knowledge that may have some flaws. Rather, in contrast to his self-valorized "scientific alternative," readers are to consider them mere common sense notions.

2. In contrast to standard practice in science, Goodman presents no data that the phonic and word centered approaches do not work. He conducts no experiments—indeed, he cites no research at all—showing that whole language instruction (derived from his guessing game formulation of reading) is more effective than the phonic centered and word centered approaches he wishes to replace. And, although he calls them "misconceptions," he does not analyze the intellectual apparatus behind the phonic centered and word centered approaches (e.g., their theories of reading) to show they are logically flawed.

In other words, Goodman does nothing to (in his own words) "refute" these common sense notions. His only claim to readers' attention—and the only warrant for his "scientific" alternative—is an unsubstantiated opening pitch that there are two preexisting alternatives; that these alternatives are merely common sense notions; and that they are misconceptions.

The New Model

Goodman then presents his "scientific" alternative.

... I offer this: "Reading is a selective process. It involves partial use of available minimal language cues selected from perceptual input on the basis of the reader's expectation. As this partial information is processed, tentative decisions are made to be confirmed, rejected, or refined as reading progresses." More simply stated, reading is a psycholinguistic guessing game. It involves an interaction between thought and language. Efficient reading does not result from precise perception and identification of all the elements, but from skill in selecting the fewest, most productive cues necessary to produce guesses which are right the first time. The ability to anticipate that which will be seen, of course, is vital in reading, just as the ability to anticipate what has not yet been heard is vital in listening (pp. 127–128).

In contrast to standard practice in science, Goodman presents no data that the phonic and word centered approaches do not work.

That is Goodman's new conception of reading—his more viable scientific alternative. Goodman's conception consists of the following propositions—taken from his initial statement (above) and from the summary of his "model" at the end of the paper.

1. "Efficient reading does not result from precise perception and identification of all the elements."
2. Reading "involves an interaction between thought and language."
3. "Reading is a selective process."
4. This selecting process "involves partial use of available minimal language cues..."
5. Efficient reading results "from skill in selecting the fewest, most productive cues..."
6. These cues are at first graphic cues (p. 135).
7. These cues are "selected from perceptual input on the basis of the reader's expectation." They are "guided by constraints set up through prior choices, his language knowledge, his cognitive styles and strategies he has learned" (p. 135).
8. These cues provide "partial information."
9. The reader "forms a perceptual image using these cues and his anticipated cues" (p. 135).
10. The reader "searches his memory for related syntactic, semantic, and phonological cues."
11. This memory search "may lead to selection of more graphic cues and to reforming the perceptual image" (p. 135).
12. These cues are "necessary to produce guesses which are right the first time."
13. The reader then "makes a guess or tentative choice consistent with graphic cues. Semantic analysis leads to partial decoding as far as possible" (p. 135).
14. This partial information "is processed, tentative decisions are made to be confirmed, rejected, or refined as reading progresses."
15. "If no guess is possible, he checks the recalled perceptual input and tries again" (p. 135).
16. "If a guess is still not possible, he takes another look at the text to gather more graphic cues" (p. 135).
17. "If the tentative choice is not acceptable semantically or syntactically, then he regresses, scanning from right to left along the line and up the page to locate a point of semantic or syntactic inconsistency" (p. 135).
18. "When such a point [semantic or syntactic inconsistency. MK] is found, he starts over at that point" (p. 135).

19. "If no inconsistency can be identified, he reads on seeking some cue which will make it possible to reconcile the anamolous [*sic*] situation" (p. 135).
20. "If the choice is acceptable, decoding is extended, meaning is assimilated with prior meaning and prior meaning is accommodated, if necessary" (p. 135).
21. "Then the cycle continues" (p. 135).
22. The above propositions enable one to see reading as a "psycholinguistic guessing game."

Rhetorical Devices and Logical Fallacies in Goodman's Guessing Game

Goodman's new conception of reading is unsatisfactory in several ways.

It is speculation, not science.

A defining feature of science (in contrast to metaphysics, opinion, fantasy, and madness) is that propositions, arguments, theories, and conceptual schemes are judged viable and scientific not because proponents say so, but on the basis of empirical evidence and sound reasoning. Science also requires that writers define terms—especially when terms are new or may be misunderstood. However, Goodman's version of science—at least in his article—appears not to require any empirical evidence or effort at clear definition. He offers no data whatever to support his assertions that, for example,

1. Reading does not result from "precise perception and identification of all the elements."
2. Readers "select" "productive cues," and then guess at what words say and mean.
3. "Readers utilize not one, but three kinds of information simultaneously" (p. 131).

Nor does he explicate the meaning of "cue," "guess," "thought," "language," or even "reading."

The absence of evidence and clear definition weakens Goodman's claim that he offers a viable scientific alternative conception of reading. Still, Goodman managed to help fashion a new definition of science—a science with neither data nor reasoning nor defined concepts, a science indistinguishable from speculation and wishful thinking. However,

However, Goodman's version of science—at least in his article—appears not to require any empirical evidence or effort at clear definition.

this revisionist science well served later whole language teachers, writers, researchers, and advocates who (guided by Goodman) no longer felt obliged to abide by—or even accept the legitimacy of—traditional scientific rules about external verification of claims via tests available to other persons (Moats, 2000). In the absence of empirical evidence, we can only assess the adequacy of Goodman's new guessing game conception of reading by examining the logical adequacy of his propositions, as shown below.

Goodman's conception of reading commits the fallacy of hasty generalization, or converse accident. Goodman's paper implies that his new conception embraces all of reading. He does not say that only certain elements of reading, at some times, for some readers are part of a guessing game. Rather, "(R)eading is a psycholinguistic guessing game." It is for all readers a process of selecting cues, and then guessing, confirming, rejecting, or refining tentative decisions about what sounds letters make, what a word says and means, what a period and comma imply, how words are spelled. However, such guessing, cue selecting, and decision making arguably apply only to (a) beginning readers; (b) older readers who have not been taught to read and understand text based on solid knowledge (and the automatic application) of sound/symbol correspondence, punctuation, spelling, subject/predicate, cause/effect, and so forth; or (c) skilled readers who have run into a new and difficult word. Consider propositions 13–21. Is it reasonable to assert that these activities apply to all readers? Is there any evidence that skilled readers guess at every word—as if reading (fluent reading) were a series of tentative choices?

Another example of hasty generalization is Goodman's use of reading errors—called "miscues"—as the **only evidence** that all reading is guessing. Goodman's paper does not provide samples of fluent reading to substantiate his propositions about selecting and guessing. *This may be because fluent reading provides no evidence of guessing.* In summary, it is likely that Goodman's guessing game conception of reading applies only to poor readers, beginning readers, or good readers who are decoding unfamiliar words. **In other words, all that is new in Goodman's new conception is the unwarranted generalization that all readers guess all the time.**

The massive irony, here, is that Goodman's followers created a method of reading instruction—whole language—**that reversed the polarity of guessing.** Rather than something to be overcome because it signified lack of skill, guessing was now considered a natural and good thing, and therefore was to be encouraged. Systematic instruction on phonemic awareness, sound/symbol relationships

(m says mmm), word attack, and spelling was now unnatural—a bad thing to be discouraged. ***Whole language teachers therefore explicitly and systematically taught new readers the guessing strategy used by poor readers for making errors, and called it fine.***

Goodman's conception of reading as a guessing game commits the fallacy of reification, or hypostatization. In other words, Goodman treats abstract terms ("reconcile the anamolous [*sic*] situation," assimilation, accommodation) and metaphoric fictions ("searches his memory for... cues," "he checks the recalled perceptual input") as if they were concrete objects or events (Thompson, 1995). Recall that Goodman's new formulation hinges on rejection of the "common sense" notions that (a) reading involves an almost instantaneous recognition of whole words, or (b) reading involves an almost automatic "perception and identification of letters, words...." Note that whole word and phonic processes are ordinary, readily observable, mundane actions. The reader sees and properly or improperly identifies letters and words. Most observable identification errors have straightforward, ordinary, mundane implications for instruction; e.g., at sounding out words. ***But Goodman will offer nothing attractive to potential followers unless he conjures a radical shift of reading from the mundane to the esoteric.*** Something as commonsensical as mere skill instruction will not do. Henceforth, reading processes and reading instruction will no longer be easily seeable and teachable. Instead, reading processes will be located in the mind: reading will involve "an interaction between thought and language." Goodman now invents a mental apparatus to account for reading skill and error—the psycholinguistic guessing game—and it consists of selecting, deciding, guessing, confirming, rejecting, and refining.

There are two logical problems with Goodman's reified mental guessing game apparatus. First, in contrast to what we ordinarily expect of a viable scientific account, there is no way to test whether Goodman's hypothesized mental apparatus exists at all—i.e., whether readers in fact perform the elaborate guessing routine—or whether the hypothesized apparatus operates just as Goodman proposes. After all, many models of thought processes can be generated to account for the same reading behavior—just as demonic possession once provided a coherent account of psychiatric symptoms.

Goodman now invents a mental apparatus to account for reading skill and error—the psycholinguistic guessing game—and it consists of selecting, deciding, guessing, confirming, rejecting, and refining.

Second, Goodman transforms similes and metaphors (as–if) into objects—thought processes. However, all anyone (with a scientific orientation) can reasonably say about a fluent reader's performance is, "Her eyes scan the words and she speaks them as written." And all anyone can say about a struggling reader's halting, error-filled performance is, "It is as if she is guessing." Yet, Goodman's "scientific" formulation would have us believe that readers (skilled and unskilled) actually see words, select cues, make a guess, check the guess, reject the guess, make another guess, confirm the guess, and then say the word correctly or incorrectly. If the guessing game is not a convenient fiction enabling Goodman to make sense of reading, but is considered a reality—something really happening—then a reader enacting the psycholinguistic guessing algorithm (propositions 5–20 above) would be carrying on an internal dialogue, as follows.

"James said... Hmmm, that t h looks like it might be there. Okay, I'll say there... There lion... Wait... That doesn't work. Okay, I'll try them... Them lion... Nope... Maybe it's this... This lion... Yeah, that sounds right. This lion..."

But we rarely see anything like this guessing process. Even when readers make a high rate of errors, reading is so fast it is hard to imagine that somewhere in their subvocal thinking they perform the mental guesswork. The only thing available to the observer of the above reading sample is the reader saying, "James said, (three-second pause) This lion." Which is the more reasonable account of the three-second gap between "said" and "This" (and every other error or pause in a passage)? (a) The reader naturally (with no instruction) repeatedly enacts multistep guessing routines in milliseconds, or (b) The reader simply needs someone to tell him, "That word is this... Spell this... *t h i s*... What word?... *this*. Good. Start the line again... *James said, This lion is big.*"

In other words, Goodman's psycholinguistic apparatus (which, for science, would be considered reified fictions, or hypothetical constructs) is either: (a) incapable of any sort of test; and/or (b) simply impossible as an actual activity in real time. *At best, his psycholinguistic guessing game can only be treated as a metaphor—in which case one asks if a metaphor is the right foundation for actual reading assessment and instruction.*

Whole language and upward mobility

Goodman's hypothetical multistep mental guessing apparatus had and continues to have strong appeal. As mentioned, Goodman helped to move reading and reading instruction out of the mundane world of common, observable skills and into the world of esoterica. Even simple decoding of text was now a complex mental activity involving higher order thought processes such as selecting, testing, confirming, and revising. Reading instruction would now require special skills giving teachers access to the realm of thought where the hypothesized higher order guessing game was played. Special courses, textbooks, conferences, and education professors would be needed.

In other words, Goodman was not merely offering an alternative to the phonic centered and word centered approaches. He was creating an invidious status distinction. *He was offering prestige.* This may have been appealing to education professors long known to occupy positions of low status and prestige in the university community, and to school teachers whose long hours, lack of appreciation, and low salary also connoted low status and prestige. By making reading and reading instruction esoteric processes, Goodman's paper helped foster the idea that traditional reading instruction was only for commonsense-minded technicians interested in observable skill. Whole language teachers and professors would be much more than this; they would be theoreticians—certainly a higher class of people. This clarifies the facile denigration of systematic instruction, planned practice, teaching formats, field tested materials, scripted lesson plans, mastery tests, and in general accountability by whole language teachers and education professors. *Reading instruction was to be an art; and the reading teacher an artiste.*

Miscue analysis and the quasi-therapeutic

As noted earlier, the only empirical evidence that Goodman presents in support of (as examples of) his guessing-game model are reading errors made by children. Goodman calls these errors "miscues in order to avoid value implications" (p. 127). For example, the story text reads,

"So, education was good! I opened the dictionary and picked out a word that sounded good. 'Philosophical'. I yelled.

As mentioned, Goodman helped to move reading and reading instruction out of the mundane world of common, observable skills and into the world of esoterica.

Might as well study word meanings first. 'Philosophical: showing calmness and courage in the face of ill fortune."

What the child read was,

"So, education was good! I *hoped* a dictionary and picked out a word that sounds good. *PH He* yelled. Might as well study *what it means. Phizo Phiso/soophical*: showing calmness and courage in his face of ill *fort future futshion.*"

Goodman states, "*His expected* [i.e., correct. MK] *responses mask the process of their attainment* [That is, how he read correctly. MK], *but his unexpected responses* [i.e., errors, or miscues. MK] *have been achieved through the same process, albeit less successfully applied*" (p. 127). This is a very interesting statement. Goodman is saying that when readers are fluent, we do not see how they do it; i.e., we do not see any guessing game. It is only when they err that we can make a case for guessing. And then, with no rationale at all, Goodman states that reading well and making errors are done via the same process. How could he possibly know that?

But as to incorrect reading itself, Goodman still has no direct, empirical evidence of guessing or any other activity in the elaborate guessing game apparatus. He does not ask readers to, for example, say *outloud* what they are doing as they try to read. All he has are interpretations of alleged covert guessing processes. Goodman's interpretations (miscue analysis) reveal that he is willing to avoid the most obvious interpretation of errors in favor of the guessing hypothesis. For example, Goodman says, "The substitution of *hoped* for *opened* could again be regarded as careless or imprecise identification of letters. But if we *dig beyond* [italics added] this common sense explanation, we find (a) both are verbs (b) the words have key graphic similarities. Further, there may be evidence of the reader's bilingual French–Canadian background here, as there is in subsequent miscues (*harms* for *arms*, *shuckled* for *chuckled*, *shoose* for *choose*, *shair* for *chair*)" (p. 128).

It is clear that despite what Goodman makes of them, **these errors are by definition examples of the "imprecise identification of letters"—and this imprecision rests very much on the child's lack of sufficient instruction on how to sound out familiar and unfamiliar words based on knowledge of sound/symbol correspondence.** It seems that Goodman goes out of his way to avoid the obvious account of reading errors—the child has not been taught word attack skills—so that Goodman can "dig beyond" the obvious and provide a more interesting guessing game interpretation for which there is not a shred of direct evidence—not when persons read well and not even when they make errors.

In summary, Goodman uses miscues as a resource for making interpreta-

tions about thought processes in a way that suits his guessing game model. There is nothing in the miscues themselves that suggests anything about thought processes. But there is everything in the miscues that points directly at poor instruction. Ironically, if Goodman's approach were in fact scientific, he would provide a panel of impartial observers with a set of miscue examples and ask the panel to make sense of each error or miscue, and then compare his interpretation with theirs. In this way he could determine the reliability of his interpretations.

Goodman's entire guessing game model commits the fallacy of affirming the consequent. Goodman began his paper with the claim that his model would be an example of science—not mere common sense. However, his argument commits perhaps the most fundamental error that the scientific method is devised to avoid; namely, the fallacy of affirming the consequent. This fallacy can be depicted as follows.

If P, then Q
Q (Affirming the consequent)

Therefore P

For example,

If there is frustration, then there will be aggression.

There is aggression.

Therefore, there is frustration.

The logical problem is that **aggression may be the result of many things besides frustration.** That is why scientific researchers try to identify alternative explanations (e.g., models of aggressive behavior, reinforcement for aggressive behavior, a history of physical abuse) and see if these alternatives can be disproved—leaving the original proposition (If frustration, then aggression) intact for the time being.

Goodman's argument can be summarized as follows.

If reading is a psycholinguistic guessing game, then readers will make certain kinds of errors—miscues.

Readers do make these kinds of errors—miscues.

The prediction is that students who are taught to guess (and who do not know when a guess is correct) will make many more errors.

Therefore, reading is a psycholinguistic guessing game.

I have pointed out that miscues themselves are not direct evidence of any mental guessing game activity. Goodman has simply interpreted them that way. And there is no way to "dig" into anyone's thought processes to determine whether Goodman is right or wrong. Even so, there are other explanations for these miscues besides an hypothesized mental guessing game. **The strongest candidate alternative is poor instruction.** At least that is a plausible rival explanation (Hempenstall, 1999). A student makes half a dozen errors trying to sound out "philosophical" because he was not taught exactly how to sound it out. He is not firm on each letter/sound combination; he is not firm on sounding out a letter or blend, holding the sound and scanning the word for the next letter or blend. He says "hoped" instead of "opened" because, again, he is not firm on the sounding out strategy, and because he has not had a teacher who systematically juxtaposed similar looking words—hoped/opened—and demonstrated again and again that they are sounded out differently.

In summary, *it may be that many reading errors are NOT the result of guessing—as some sort of natural process—but are taught.* A student reads a passage and says "fort" rather than "fortune." The teacher or tutor simply (and improperly) tells the student, "fortune." The student repeats "fortune" and goes on with the passage—never really learning to sound out the difficult word. Predictably, when the student sees "fortune" again, she says "fort"—because that is what she has "practiced" so many times before. Or, when the student says "fort" rather than "fortune," the whole language teacher tells the student to think of a word that might go there—in other words, the *teacher encourages guessing.* The student casts about and tries "future" and "futshion." Predictably, when the student runs into "philosophical," the student will not sound out the word, but will do as she was taught—she will cast about for likely possibilities—"phizzo," "physical," "physicacol." In other words, *the student's errors do not reflect a natural guessing game apparatus. They are direct effects of explicit (mal)instruction on guessing and failure to receive proper instruction on how to sound out words.*

The scientific test of the above rival hypothesis—errors represent how students are mistaught; they do not represent an innate guessing game—is relatively easy to perform. Identify the sorts of errors made by students taught with whole language vs. the sorts of errors made by students taught with more focused instruction in each reading skill, in which errors are not corrected by having students guess but by firming up the sound-it-out strategy. The prediction is that students who are taught to guess (and who do not know when a guess is correct) will make many more errors.

Summary

Kenneth Goodman's 1967 article helped to foster the whole language movement, which for several decades was the predominant approach to reading instruction in many schools of education, school districts, and states. However, recent experimental research has shown that many of the **defining** (and allegedly **revolutionary**) design features of whole language (e.g., attempting to teach elemental reading skills—such as phonemic awareness, sound/symbol correspondence, word identification, and spelling—in the context of complex reading and writing activities that **require** these very skills) are at odds with what is known about effective instruction. In addition, evaluation research shows that whole language is often less effective than its advocates claim, and is specifically less effective than field-tested curricula that provide systematic, explicit, comprehensive, precisely planned and logically progressive instruction on all of the elemental and complex skills in reading.

This paper examined the "viable" and "scientific" model of reading proposed by Kenneth Goodman—a model that has guided both the **methods** used in whole language (e.g., implicit, as-needed instruction; miscue analysis) and the ways whole language advocates **legitimize and valorize** their actions. The examination of Goodman's "psycholinguistic guessing game" model revealed that Goodman:

1. Provides no data that adequately support his presumption that there is any such guessing game apparatus. This may be because the guessing game is in fact a metaphor.
2. Uses a small and selective sample of reading behavior (errors, or "miscues") as evidence that readers use the psycholinguistic guessing game.
3. Interprets these errors in a way that supports the guessing game model, but fails to consider plausible alternative interpretations and offers no evidence of interobserver reliability of his interpretations. (See Hempenstall [1999] for a reasoned and extensive critique of miscue analysis.)
4. Commits the fallacy of hasty generalization by asserting that his interpretations of some readers' guessing errors imply that **all** readers use the guessing apparatus.
5. Commits the fallacy of affirming the consequent when he reasons that errors signify the existence of a psycholinguistic guessing apparatus, when (and more reasonably) errors signify poor instruction.

In summary, it appears that the whole language movement—with all of its publications, assessment instruments and devices, conferences and organizations, college courses, classroom methods, and consequences for young readers—rests on a mere metaphor (the psycholinguistic guessing game) supported by assorted logical fallacies. An interesting sociological question is, what cultural circumstances disposed so many education students, administrators, college professors, boards of education, and veteran teachers to so easily and so thoroughly accept Goodman's psycholinguistic guessing game as a premise for their reading curricula? ADI

References

Chapman, J. W., Tunmer, W. E., & Prochnow, J. E. (1999). Success in Reading Recovery depends on the development of phonological processing skills. The Plains, VA: The National Right to Read Foundation. [Online]. Available: http://www.nrrf.org/rr_study_chapman.htm

Daniels, H., Zemelman, S., & Bizar, M. (2000). Whole language works: Sixty years of research. *Educational Leadership, 57*(2), 32–37.

Fletcher, J. M., & Lyon, G. R. (1998). Reading: A research-based approach. In W. M. Evers (Ed.), *What's gone wrong in America's classrooms* (pp. 40–90). Stanford, CA: Hoover Institution Press.

Foorman, B. R., Francis, D. J., Fletcher, J. M., Schatschneider, C., & Mehta, P. (1998). The role of instruction in learning to read: Preventing reading failure in at-risk children. *Journal of Educational Psychology, 90*, 37–55.

Goodman, K. (1967, May). Reading: A psycholinguistic guess game. *Journal of the Reading Specialist*, 126–135.

Goodman, K. (1976). Manifesto for a reading revolution. In F. V. Gollasch (Ed.), *Language and literacy: The selected writings of Kenneth S. Goodman* (pp. 231–241). London: Routledge & Kegan Paul.

Goodman, K. (1986). *What's whole in whole language.* Portsmouth, NH: Heinemann Educational Books.

Gough, P. (1993). The beginning of decoding. *Reading and Writing: An Interdisciplinary Journal, 5*, 181–192.

Hempenstall, K. (1999). Miscue analysis: A critique. *Effective School Practices, 17*(3), 85–93.

Hiebert, E. H. (1995). Reading Recovery in the United States: What differences does it make to an age cohort? *Educational Researcher, 23*(9), 15–25.

Liberman, A. M. (1999). The reading researcher and the reading teacher need the right theory of speech. *Scientific Studies of Reading, 3*, 95–111.

Moats, L. C. (2000). Whole language lives on: The illusion of "balanced" reading instruction. Washington, DC: Thomas B. Fordham Foundation. [Online]. Available: http://www.edexcellence.net/library/wholelang/moats.html#foreword

National Reading Panel. (2000). *Teaching children to read.* National Institute of Child Health and Development. Washington, DC: US Department of Health and Human Services.

Pappas, C. C., & Pettegrew, B. S. (1998). The role of genre in the psycholinguistic guessing game of reading. *Language Arts, 75*(1), 36–44.

Powell, D., & Hornsby, D. (1993). *Learning phonics and spelling in a whole language classroom.* New York: Scholastic Professional Books.

San Diego Unified School District (1999). *Reading Recovery Research Project.* Office of the Board of Education: San Diego, CA. [Online]. Available: http://www.nrrf.org_sd/rrrp.htm

Smith, F. (1985). *Reading without nonsense.* New York: Teachers College Press.

Stahl, S., McKenna, M. C., & Pagnucco, J. R. (1994). The effects of whole instruction: An update and reappraisal. *Educational Psychologist, 29*(4), 175–185.

Thompson, L. J. (1995). *Habits of the mind.* New York: University Press of America.

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The Three-Cueing System: Help or Hindrance?

The three-cueing system is an established element in most preservice and inservice teacher training courses. It offers an explanation of how skilled readers comprehend written language, and a direction for the role of teachers in literacy education. It is one of those belief systems the origin of which is difficult to establish, and the wide-scale and uncritical acceptance of which is surprising to those anticipating an empirical foundation. Perhaps the system is popular among teachers because it appears to reconcile the conflict between a phonics-emphasis curriculum and a literature-based curriculum. There has long been a tension between the two approaches, and the apparent reasonableness of the three-cueing conception of skilled reading may reduce such tension—a spirit of compromise prevailing over a determination to establish the reality. When there are two apparently polar alternatives, seek the comfort of the middle ground.

Wouldn't it be convenient if there were numerous equally effective means of making sense of print? That there weren't essential elements that every reader must master? Many teachers express the view that differences among the learning styles of children make any single approach to literacy instruction problematic. They observe that for some children the early stages of reading have already been mastered prior to school entry, for others development is rapid and stress free, requiring only minimal assistance.

Whilst this observation actually concerns variations in the degree of literacy preparedness of students, a frequent conclusion is that students therefore require different instructional emphases rather than simply different instructional entry points. A further assumption may be that there are many qualitatively different ways of skillfully extracting (or constructing) meaning from print. Perhaps, they reason, one student may benefit most by focusing on the meaning of print rather than its structure, and so benefit most when exhorted to employ contextual cues. A student may have a strong visual memory for words, whilst another appears more sensitive to the sounds in words, and yet another seems to respond to a focus on the tactile or kinaesthetic senses.

The belief such observations may engender is that attention to phonemic awareness and/or phonics for all students is a forlorn attempt to shoehorn different learners into only one of numerous possible reading methods—indeed one that may not suit their personal (neurological?) style or preference. Perhaps this perception explains the ready acceptance of many different methods, including the three-cueing system which offers the apparent unification of diverse approaches.

Ultimately, however, what constitutes the effective teaching of reading is an empirical question, and the decision about instructional focus should depend not on belief, but upon knowledge of the processes underlying skilled reading, and the means by which skilled reading is most effectively pursued. In the USA, the recent national and state education bills informed by the results of the National Reading Panel (2000) have highlighted a momentum shift from reading viewed as a natural process unique to each child to reading as a difficult skill that is developed more effectively under some educational conditions than others.

The ready acceptance of the three-cueing model should not be treated lightly because beliefs about the reading process determine what should and should not occur in the beginning reading classroom. The implications form the very core of literacy instruction, and if the conception of reading development is mistaken then the activities of teachers employing its recommendations may subvert the reading progress of students, and in particular, of those students who do not readily progress without appropriate assistance.

In fact, the three-cueing system is a seriously flawed conception of the processes involved in skilled reading, and the practices flowing from its misconception may have contributed to the problems experienced by an unacceptably large number of students. Not only are the practices flowing from the system ineffective for promoting beginning reading, they actually deflect students away from the path to reading facility. Sadly, many parents do not discover until about Grade 4 that their children have been taught moribund reading strategies, and to their dismay, that recovery is unlikely (Chall, Jacobs, & Baldwin, 1990; Lewis & Paik, 2001; Spear-Swerling & Sternberg, 1994).

In developing an understanding of the rise to popularity of the three-cueing system it is necessary to consider the context in which it occurred. During the past two decades, an approach to education with strong philosophical underpinnings, whole language, became the major model for educational practice in many countries.

The whole language movement itself is refractory to detailed examination, so is best examined through its underpinnings, its philosophical assumptions and its visible manifestations, that is, its

instructional features. The whole language approach had its instructional roots in the meaning–emphasis, whole-word model of teaching reading. This emphasis on whole words was a comparatively recent shift; the phonic technique of teaching component skills, and then combining those skills had been the norm until the mid-Nineteenth Century (Adams, 1990). It followed a sequence of teaching upper-case and lower-case letter names, two-letter and three-letter combinations, monosyllabic words, multisyllabic words, phrases, sentences, and finally, stories. Phonics is an approach to teaching reading that aims to sensitize children to the relationships of the spelling patterns of a written language to the sound patterns of its corresponding oral language. It is not a single pathway, however, as decisions need to be made regarding the timing of its introduction, the method of delivery, whether explicitly or implicitly taught, whether correspondences are presented in isolation, or solely in the context of literature, how many correspondences, and which (if any) rules are appropriate.

In 1828 Samuel Worcester produced a primer that borrowed a European idea of teaching children to recognize whole words without sounding them out.

> It is not very important, perhaps, that a child should know the letters before it [*sic*] begins to read. It may learn first to read words by seeing them, hearing them pronounced, and having their meanings illustrated; and afterward it may learn to analyse them or name the letters of which they are composed. (Crowder & Wagner, 1991, p. 204)

Support for this view came from James Cattell in 1885 in his assertion that whole word reading was more economical (Davis, 1988); and later, from the Gestaltists who considered that the overall shape of the word (rather than the summation of the sound-parts) should provide the preeminent clue for young readers.

An assumption behind this approach was that beginning readers should be taught to read in the way skilled readers were thought to do. Given the belief that skilled readers associated meaning directly onto the whole-word image, it followed that showing beginners how this was achieved would save time. The alternative view was that reading should be viewed as a developmental process in which the early stages of developing the alphabetic principle are necessary for later skilled-reading, even though those early skills may be rarely needed at the later stages. This alternative perspective fell from favor until its recent resurrection through the interest in phonological processing.

Phonics is an approach to teaching reading that aims to sensitize children to the relationships of the spelling patterns of a written language to the sound patterns of its corresponding oral language.

A further assumption of what became known as the whole-word approach was that the knowledge of letter–sounds would naturally follow once whole-word recognition was established (Smith, 1978). It was not until some time later that doubt began to be expressed about the effects on some children of this whole-word initial emphasis. Unfortunately for many at-risk children, the consequence of the primacy of the whole-word method is an inability to decode unfamiliar words (Tunmer & Hoover, 1993), a problem that becomes more pronounced as the student meets a dramatically accelerating number of new words during the late primary and into the secondary grades.

The whole-word model involved introducing words through their meaning as the words are presented in stories. Words are to be recognized by sight, using the cue of their shape and length. A secondary strategy relies on deducing meaning from other contextual clues, such as accompanying pictures or through guesses based upon the meaning derived from surrounding words (Chall, 1967). In a whole-word approach, phonic strategies are considered potentially harmful, and to be employed as a last resort. Even then, they are intended to provide only partial cues, such as obtained by attention to a word's first or last letters. Systematic teaching of phonic strategies was antithetical to the holistic nature of such meaning-oriented approaches. Because teaching should not take as the unit of instruction anything other than meaningful text, any phonic skills developed by students is likely to be self-induced and idiosyncratic.

Goodman (1986) described whole language as an overarching philosophy rather than as a series of prescribed activities, and one not to be simply equated with an instructionally-based strategy such as the whole-word approach. In his view, the teacher aims to provide a properly supportive, rather than directive, environment that encourages children to allow the natural development of literacy at their own developmentally appropriate pace.

There is a strong emphasis on principles, such as, the benefits of a natural learning environment (Goodman, 1986) and of exposure to a literate environment (Sykes, 1991). The proponents of the approach also insist that reading and writing are natural parts of the same language process that enable the development of speech. In this view, learning to read and write would be equally effortless and universal if only the reading task were made as natural and meaningful as was learning to talk. Goodman (1986) argued that it is the breaking

down of what is naturally a holistic process into subskills, to be learned and synthesized, that creates a disparity in some children's ease of acquisition of speaking and of reading.

Whilst whole language offers solely a philosophical rationale rather than the instructional underpinnings offered by the whole-word method, the negative responses of each model to the emphasis on the alphabetic principle in phonics instruction are very similar.

Whole language advocates have conceptualized reading development as the gradual integration of three-cueing mechanisms (semantic, syntactic, and graphophonic). The term *integration* is important because it is made clear that the three strategies are not intended to be employed in isolation, but so quickly that they appear simultaneous. In this view, skilled readers make continuous use of the cues as required. They are engaged in a continuous process of prediction and confirmation as they construct meaning from the text.

Semantic, syntactic and graphophonic cues.

Semantic cues involve enlisting the meaning of what has just been read to assist with decoding words about to be read, that is, the next (unknown) word should make sense in the context of the reader's ongoing interpretation of the text meaning. For example, in the sentence *The rodeo rider leaped onto the back of his* _____, the reader's integrated three-cueing system enables him to produce a word that maintains the sense of the sentence. "I don't recognize this word, but what would make sense to me? In the context of the sentence and my experience with the world, it would make sense if it were *horse.*"

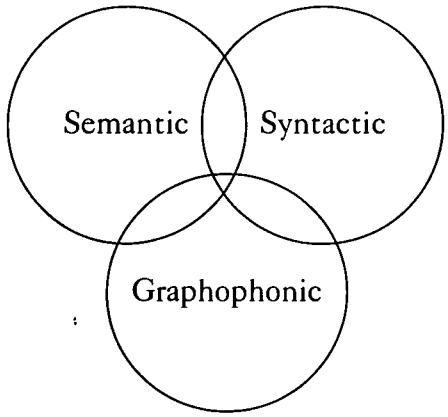
Syntactic cues arise because of the logic of our system of sentence construction—words and their position in a sentence are constrained by the rules of grammar. Word order, endings, tense, intonation, and phrasing are each elements of syntax. Thus, the word chosen in the previous example must be a noun, it couldn't be a participle such as *horsing.* "So, the word I chose (*horse*) is appropriate in that it is syntactically acceptable." In order to show students how to make use of this cue, teachers are likely to encourage students to skip the word, and read on until a clue becomes available, derived from the structure of the rest of the sentence. This is usually called the read-ahead strategy.

Syntactic and semantic cues are broadly described as context cues, as they may be used to name a word without recourse to visual inspection. When students self-correct their reading errors based upon such cues, teachers are likely to be pleased, as it indicates to them the operation of contextual cues.

It is also likely that they will be discouraged from employing sounding out as an initial strategy for determining the pronunciation of an unknown word.

Graphophonic cues refer to the correspondence between graphemes (the symbols in print) and phonemes (the speech sounds they represent). In the three-cueing system, the graphophonic cues are employed as a backup element, to help confirm the choice of words. "Yes, the word I chose (*horse*) begins with an *h* so it meets the demands of graphophonic suitability."

According to the advocates of this interpretation of skilled reading, the process outlined occurs so rapidly as to be virtually instantaneous. That it is the integration of the three processes that produces meaning is indicated by the familiar overlapping circles of the diagram below. Comprehension is indicated by the area shared by the three intersecting circles.



This representation is similar to that shown in Pearson (1976).

The instructional implication of this assertion about skilled reading is that beginning readers and those struggling with the reading process should consciously master the self-questioning in order to become adept at reading in this three-cueing manner. For example, teachers may cover up key words in sentences, prompting students to practice making use of contextual clues to predict the hidden words, and they may encourage students to seek meaning from an accompanying picture and produce an appropriate word. Students may have the three-cueing sequence modelled to them whenever they request teacher assistance with an unknown word. It is also likely that they will be discouraged from employing sounding out as an initial strategy for determining the pronunciation of an unknown word. Apart from those teacher decisions, there is little else in the way of clearly delineated advice to teachers to ensure such a seemingly complex set of orchestrated processes does occur.

In the three-cueing approach, the three systems are not considered to be equally useful; the graphophonic system labelled the least helpful—even potentially disruptive when relied upon by readers (Weaver, 1988). Reading should entail as little empha-

sis as possible on each word's letter construction. Rather, skilled reading is perceived as a process of continuous prediction of target-words, this prediction based primarily upon semantic and syntactic cues, followed by confirmation that the chosen word is consistent with the context (and possibly the target word's initial letters).

> "In turn (the reader's) sense of syntactic structure and meaning makes it possible to predict the graphic input so he is largely selective, sampling the print to confirm his prediction" (Goodman, 1973, p. 9).

However, if a struggling reader can't pronounce most of the words on a page, there is no useful context to interpret. Yet, the so-called "integrated" use of the system actually involves employing them sequentially (even if rapidly), with the graphophonic cues to be the last in the sequence. What advice should a teacher give to a student when word identification problems arise prior to any context being established? Even if the graphophonic system is recommended as a last resort, how will the students know how to use it productively? Further, will they be motivated to do so, if taught that it is largely unhelpful?

Students are disadvantaged because proponents of whole language have invariably been uncomfortable with instructional attention being devoted to within-word structure. The responses of whole language protagonists have taken several forms.

One approach has been outright rejection of word structure:

> "Focus on the subsystems of language results in useless, time-wasting and confusing instruction" (King & Goodman, 1990).

> "The rules of phonics are too complex,... and too unreliable... to be useful" (Smith, 1992).

Submerge phonics

> "Phonic information... is most powerfully learned through the process of writing" (Badger, 1984, p. 19).

Argue that phonics knowledge requires no instruction.

> "Children can develop and use an intuitive knowledge of letter–sound correspondences [without] any phonics instruction [or] without deliberate instruction from adults" (Weaver, 1980, p. 86).

Students are disadvantaged because proponents of whole language have invariably been uncomfortable with instructional attention being devoted to within-word structure.

> "Children must develop reading strategies by and for themselves" (Weaver, 1988, p. 178).

Routman takes this position further in arguing that only by learning to read does phonics information become useful. In other words, reading facility precedes the capacity to learn phonic strategies (Routman & Butler, 1988).

Argue that phonics approaches emphasize accuracy to the detriment of meaning.

> "Accuracy, correctly naming or identifying each word or word part in a graphic sequence, is not necessary for effective reading since the reader can get the meaning without accurate word identification.... Furthermore, readers who strive for accuracy are likely to be inefficient" (Goodman, 1974, p. 826).

Goodman (1976) argued that phonic skills should only develop within the context of three-cueing systems used to extract meaning from print. In this view, the graphophonic system is considered a fallback position to be used when semantic and syntactic systems fail (Weaver, 1988).

> "The first alternative and preference is—to skip over the puzzling word. The second alternative is to guess what the unknown word might be. And the final and least preferred alternative is to sound the word out. Phonics, in other words, comes last" (Smith, 1999).

A decidedly unconventional approach, intended to ensure that phonics instruction does not become widely accepted, involves *ad hominem* attacks—accusing those supportive of phonics instruction of ulterior motives:

> "Ultraconservatives advocate phonics teaching because it is authoritarian," Weaver says, and serves to socialize "nonmainstream students, especially those in so-called lower ability groups or tracks... into subordinate roles" (Weaver, 1994).

> "At a meeting of the International Reading Association 4 years ago Ken Goodman attacked Marylin Adams [a phonics advocate] as a 'vampire' who threatened the literacy of America's youth" (Levine, 1994, p. 42).

In contrast to recent consensus among empirical researchers about the importance of teaching phonics explicitly (Lyon, 1999; National Literacy Strategy, 1998; National Reading Panel, 2000), some whole language advocates have argued that phonics is relevant but can only be explored implicitly in the context of authentic literature. The concern about the implicit model relates to the risk it creates for students unable to benefit

from occasional exposure to important intraword features.

What is the evidence supportive of the view of skilled reading inherent in the three-cueing system?

Goodman (1976) described skilled reading as a "psycholinguistic guessing game" (p. 259). He sees reading as a sophisticated guessing game driven largely by the reader's linguistic knowledge, and as little as possible by the print. Smith (1975) expressed this view succinctly. "The art of becoming a fluent reader lies in learning to rely less and less on information from the eyes" (p. 50).

The rationale for asserting that contextual cues should have primacy in skilled reading was based on a flawed study by Goodman (1965). Goodman found a 60–80% improvement in reading accuracy when children read words in the context of a story rather than in a list format. He argued on the basis of this study that the contextual cues provided marked assistance in word identification. There has always been acceptance that context aids readers' comprehension, but despite contention in the literature over Goodman's finding concerning contextual facilitation of word recognition, his study is still regularly cited as grounds for emphasizing contextual strategies in the three-cueing system.

The study was flawed in two ways. The design was not counterbalanced to preclude practice effects. That is, a list of words taken from a story was read, and then the story itself was read. Secondly, the study ignored individual differences in reading ability, so it was not possible in the Goodman study to determine whether good, or poor, readers (or both categories) derived benefit from context.

Replication studies by a number of researchers including Nicholson (1985, 1991), Nicholson, Lillas, and Rzoska (1988), Nicholson, Bailey, and McArthur (1991) have discredited Goodman's argument, and found that good readers are less reliant on context clues than poor readers. A more recent study by Alexander (1998) produced similar outcomes. Results consistent with those above were reported in studies by Goldsmith-Phillips (1989); Leu, Degroff, and Simons (1986); and Yoon and Goetz (1994), cited in Alexander (1998).

Poor readers attempt to use context only because they lack the decoding skills of the good readers.

Poor readers attempt to use context only because they lack the decoding skills of the good readers. As a consequence of these studies, Nicholson (1991) argued that encouraging reliance on contextual cues only confuses children, directing their attention away from the most salient focus (word structure), and helping entrench an unproductive approach to decoding unknown words.

A further problem involves the accuracy of contextual guesses. In a study by Gough, Alford, and Holley-Wilcox (1981), well educated, skilled readers, when given adequate time, could guess correctly only one word in four through contextual cues. Gough (1993) pointed out that even this low figure was reached only when the prose was loaded with fairly predictable words. Interestingly, although good readers are more sensitive to context cues to elicit the meaning of unfamiliar words, they do not need to use context to decode unknown words (Tunmer & Hoover, 1993). They soon learn that word structure more reliably supplies the word's pronunciation than does context; unfortunately, it is poor readers who are more likely to invest attention on such context guesswork (Nicholson, 1991). The error made by whole language theorists is to confuse the desired outcome of reading instruction—a capacity to grasp the meaning of a text—with the means of achieving that end. In order to comprehend meaning, the student must first learn to understand the code (Foorman, 1995).

An additional problem was highlighted by Schatz and Baldwin (1986). They pointed out that low frequency words and information-loaded words are relatively unpredictable in prose. That is, the words least likely to be recognized are those that contain most of the information available in the sentence. As students progress through the school years, texts provide less and less redundancy from which to derive contextual cues, and the strategy becomes even more moribund.

It had also been argued (Cambourne, 1979) that the speed of skilled reading could not be accounted for if the reader looks at every word. In his view, the continuous flow of meaning should be faster than word-by-word decoding. Cambourne also asserted that good readers used contextual cues to predict words initially, and then confirm the word's identity using as few visual features as possible.

These are empirical questions that have been answered through the use of eye movement studies. It has been demonstrated that the fluent reader recognizes most words in a few tenths of a second (Stanovich, 1980), far faster than complex syntactic and semantic analyses can be performed. Eye movement studies have not supported the skipping/skimming hypothesis.

These studies (see reviews in Rayner, Foorman, Perfetti, Pesetsky, & Seidenberg, 2001, 2002; Rayner & Pollatsek, 1989; Stanovich, 1986) using

sophisticated video cameras and computers indicate that skilled readers do process all the print—they do not skip words, nor do they seek only some features of words.

Thus, the techniques of contextual prediction that are emphasized in whole language classrooms, are based upon an unsustained hypothesis about the techniques representative of skilled reading. It is unsurprising that Rayner and Pollatsek (1989), perhaps the most notable of the researchers using eye movement techniques, consider that the major failing of whole language is its lack of recognition that graphophonic cues are "more central or important to the process of learning to read than are the others" (p. 351).

More recently Pressley (1998) summarized,

> "The scientific evidence is simply overwhelming that letter–sound cues are more important in recognizing words than either semantic or syntactic cues" (p. 16).

Bruck (1988) reviewed research indicating that rapid, context-free automatic decoding characterizes skilled reading. She too had noted that the word recognition of skilled readers provided them with the text meaning even before contextual information could be accessed. It is prediction rather than scanning words that is too slow and error-filled to account for skillful reading. As Wren (2001) notes, it is only under conditions of insufficient graphophonic information that contextual strategies are employed for word identification.

Rayner and Pollatsek (1989) observed that it is only beginning and poor readers who use partial visual cues and predict words. This view was echoed by Stanovich (1986) and by Solman and Stanovich (1992) providing a strong list of supportive studies. This is also the position recently endorsed in Great Britain in the National Literacy Strategy (National Literacy Strategy, 1998), in the National Reading Panel (2000) findings, and in the extensive, large scale, longitudinal research emanating from the National Institute of Child Health & Human Development.

> NICHD and substantial non-NICHD research does not support the claim that the use of context is a proxy for applying decoding strategies to unknown or unfamiliar words.... The strategy of choice among well developing good readers is to decode letters to sound in an increasingly complete and accurate manner, which is dependent upon robust development of phonemic and phonics skills (Lyon, 1999).

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Finally, psychometric studies have indicated that measures of alphabetic coding ability rather than of semantic and syntactic ability are the strong predictors of word identification and comprehension facility (Vellutino, 1991). Whole language theorists had assumed the converse to be true. The finding regarding comprehension is particularly damning to the argument for psycholinguistic guessing, with its unfailing focus on meaning.

> Two inescapable conclusions emerge: (a) Mastering the alphabetic principle (that written symbols are associated with phonemes) is essential to becoming proficient in the skill of reading, and (b) methods that teach this principle are more effective than those that do not (especially for children who are at risk in some way for having difficulty learning to read) (Rayner et al., 2001).

Thus the presumption that skilled readers employ contextual cues as the major strategy in *decoding* is not supported by evidence. There is, however, no dispute about the value of contextual cues in assisting readers gain *meaning* from text (Stanovich, 1980). The comprehension of a phrase, clause, sentence or passage is dependent on attention to its construction (syntax) and also to the meaning of the text surrounding it (semantics). The critical issue here is the erroneous assertion that the use of contextual strategies is beneficial in the *identification* of words, and that skilled readers make use of these strategies routinely.

Does it matter how the process is conceptualized?

Yes, it is crucial. For one reason, a test developed expressly to assess students' usage of the three-cueing system is frequently employed to ensure students are in fact using this flawed system. The significance of any reading errors is thus superimposed on the reading behavior through the adoption of the three-cueing system conception of reading. "... the model of reading makes the understanding of miscues possible" (Brown, Goodman, & Marek, 1996, p. vii).

Miscue analysis is a very popular approach to assessing reading progress by attempting to uncover the strategies that children use in their reading. Goodman and his colleagues in the 1960s were interested in the processes occurring during reading, and believed that miscues (any departure from the text by the reader) could provide a picture of the underlying cognitive processes (Goodman, 1969). He used the term miscue, rather than error, reflecting the view that a departure

from the text is not necessarily erroneous (Goodman, 1979). Readers' miscues include substitutions of the written word with another, additions, omissions, and alterations to the word sequence.

Consistent with this view of skilled reading, the Reading Miscue Inventory (RMI) and its update are concerned largely with errors that cause a loss of meaning—the number of errors being less important than their immediate impact on comprehension (Weaver, 1988). There are differences in the acceptability of various miscues. Good miscues maintain meaning and are viewed as an indication that the student is using meaning to drive the reading process, and hence, is on the "correct" path. Bad miscues are those that alter meaning. Whether the word the student reads corresponds to the written word may not be important in this conception (Goodman, 1974).

A teacher using the RMI will examine the nature of the errors the student has made in chosen passages. Consider this text *The man rode his horse to town,* and a reader's response, substituting *pony* for *horse*:

Child # 1: The man rode his pony to town.

Asking the specified nine questions reveals that the miscue (compared with the target word) has grammatical similarity, syntactic acceptability, semantic acceptability, does not change meaning, and the miscue does not involve dialect variation, an intonation shift, graphic similarity, sound similarity, or self-correction. Such an error is considered an acceptable miscue. Reading *pony* for *horse* is indicative of the student using contextual cues appropriately and a signal for satisfaction about reading progress. The teacher would be content with this error, as meaning has been more or less preserved.

> "Often substitutions of words like *a* for *the*, *by* for *at*, *in* for *into*, do not cause a change in meaning... substitutions like *daddy* for *father*, *James* for *Jimmy*... are generally produced by proficient readers and are not reading problems" (Goodman & Burke, 1972, pp. 101–102).

According to the whole language conception of skilled reading, students must make many miscues during the progressive integration of the three-cueing systems in order for reading to develop. It is argued that these errors are not necessarily a cause for intervention but a positive sign of a reader prepared to take risks. Teachers should expect and even be pleased with meaning-preserving errors. Additionally, they are exhorted to avoid corrective feedback regarding errors as it is risky, likely to jeopardize the student's willingness for risk-taking.

According to the whole language conception of skilled reading, students must make many miscues during the progressive integration of the three-cueing systems in order for reading to develop.

> "... if these resulting miscues preserve the essential meaning of the text, or if they fail to fit with the following context but are subsequently corrected by the reader, then the teacher has little or no reason for concern" (Weaver, 1988, p. 325).

Suppose another student reads *house* for *horse*:

Child #2: *The man rode his house to town.*

Asking the same nine questions reveals that the miscue (compared with the target word) has graphic similarity, some degree of sound similarity, grammatical similarity, syntactic acceptability, and the miscue does not involve dialect variation, an intonation shift. Further, it does not include self-correction, is not a semantically acceptable change, and the miscue creates meaning change. This response is considered an unacceptable miscue because it changes the meaning.

> "Proficient readers resort to an intensive graphophonic analysis of a word only when the use of the syntactic and semantic systems does not yield enough information to support selective use of the graphophonic system" (Goodman, Watson, & Burke, 1987, p. 26).

Despite the closer graphemic similarity of the response *house* to the target word, children who make errors based on graphemic similarity, such as *house* for *horse*, are considered problematic and over-reliant on phonic cues. Whole language theorists argue that good readers' miscues display less graphophonemic similarity to target words than do those of poor readers (Weaver, 1988), and readers-in-training should do likewise.

Thus, the remedy the teacher chooses for Child #2 is to encourage increased reliance on context and less attention to letter patterns. However, according to the research-based consensus, this directive is more likely to result in poorer reading than in better reading. Adams (1991) argued that to improve this child's reading, the teacher should provide instruction that evokes close inspection of the letters and their position in the word, the opposite of that recommended in the RMI. Importantly, Adams found that good readers' miscues displayed more graphophonemic similarity to target words than did those of struggling readers.

In fact, most nascent readers' miscues shift over time, from early errors based upon contextual similarity to those based upon graphemic similarity; and this shift is now recognized as functional and a characteristic of progress. The student's dawning understanding of the preeminence of a word's graphemic structure encourages close visual inspection of words, a strategy that accelerates the progressive internalization of unfamiliar spelling patterns, that is, it leads ultimately to whole-word recognition. That some teachers may unwittingly subvert this process, with well-meaning but unhelpful advice to beginning or struggling readers, is an unfortunate outcome.

> "Scaffolding errors—when an error shares some or most of the sounds of the target word (e.g., 'bark' misread as 'bank') is a strong predictor of reading success. Errors that retain meaning but not initial and final phonemes ('people' for 'crowd') were not correlated with accurate word reading ability" (Savage, Stuart, & Hill, 2001).

Thus, according to current knowledge, the *house* response is a preferable error to the *pony* substitution. It may be a sign that the student is in the process of acquiring the alphabetic principle; however, corrective feedback should be provided, as *house* is an erroneous response. Through the error correction, the student's attention is directed toward the letters in the written word and the sound usually made by the */or/* combination. The response recommended to teachers through the RMI, that of directing the student's attention away from the letters in the word towards context cues, provides an alarmingly unstable and counterproductive rule for students.

Child #1 is arguably in greater need of instruction that directs his attention to the letters in the words. Child #1 might equally have substituted *bicycle* for *horse*. The substitution makes sense but is far from that which the author intended. The child whose primary decoding strategy is driven by semantic and syntactic similarity may be unaware that *bicycle* bears no graphemic similarity to *horse*. The instructional message to the student is that, despite the student's errors being directly attributable to the inappropriate method of guessing, the strategy is nevertheless the correct one. The student is thereby encouraged to continue using a strategy that is unhelpful, and is dissuaded from attending to the major cue that would improve his reading—the word's structure. According to current evidence, regardless of the type of miscue, students who make errors need to focus on the letters in the word to improve their decoding.

According to current evidence, regardless of the type of miscue, students who make errors need to focus on the letters in the word to improve their decoding.

The RMI also encourages other counterproductive instructional strategies.

Within the RMI, a student's self-corrections of errors are considered significant, and they are recorded for analysis. Self-corrections are errors that are corrected without another's intervention, usually because the word uttered does not fit in the context of the sentence. Within the whole language framework, self-corrections are a clear and pleasing sign that meaning and syntactic cues are being integrated into the reader's strategies. Clay (1969) asserted that good readers self-corrected errors at a higher rate than did poor readers. She considered high rates were indicative of good text–cue integration, which in turn was a measure of reading progress.

This view of the significance of self-correction was questioned by Share (1990), and Thompson (1981, cited in Share, 1990). They found that self-correction rates had been confounded with text difficulty. When text difficulty was controlled in reading level-matched designs, the rates of self-correction became similar among good and poor readers. That is, when text is made difficult for any readers, they are more likely to make errors and thereby increase their rate of self-correction. So, an increased rate of self-correction is better interpreted as an indicator of excessive text difficulty rather than as reflective of reading progress. This interpretation based on difficulty levels also raises concerns about unreliability in the assessment of self-correction rates. The conclusion that there is no direct support for self-correction as a marker or determinant of reading progress makes the activity of recording such ratings for students of questionable value.

The RMI was designed to provide a "window on the reading process" (Goodman, 1973, p. 5). However, the analogy with a window is a misleading one as it implies a direct and transparent medium. The picture of reading obtained through the RMI involves an interpretation of that which is viewed through this window. What is actually displayed by a student is overt behavior (spoken or written words)—the subsequent analysis of miscues involves making inferences about unobservable processes based upon assumptions about the reading process. With this instrument, the picture is colored by a discredited conception of reading. Additionally, the instrument has other weaknesses described by Hempenstall (1999).

The RMI has had considerable influence in instructional texts and in classrooms (Allington, 1984), and remains influential among whole language theorists and teachers (Weaver, 1988). A revised version—RMI: Alternative Procedures (Goodman, Watson, &

Burke, 1987) offers four analysis options of varying complexity for classroom use. The rationale is unchanged "... it is best to avoid the common sense notion that what the reader was supposed to have read was printed in the text" (Goodman et al., 1987, p. 60), and the Alternative Procedures are subject to the same criticisms as earlier versions. Although the RMI has been a very popular test, many teachers (for example, in Reading Recovery) have been trained to use an informal procedure of maintaining "running records" (Clay, 1985) with their students, a procedure that provides similar information on types of errors and self-correction rates, and that is based on a similarly flawed conception of reading.

The three-cueing system and its associated assessment tool, the RMI, are not beneficial to the understanding of the important elements in reading development, and for teachers, provide unsound directions to guide instruction. The approach is responsible for many children being stranded, without adequate tools to meet the literacy demands inescapably and increasingly inherent in education, the workplace, and the wider community. ADI

References

Adams, M. J. (1990). *Beginning to read: Thinking & learning about print*. Cambridge, MA: MIT Press.

Adams, M. J. (1991). Beginning to read: A critique by literacy professionals and a response by Marylin Jager Adams. *The Reading Teacher, 44*, 370–395.

Alexander, J. C. (1998). Reading skill and context facilitation: A classic study revisited. *The Journal of Educational Research, 9*, 314–318.

Allington, R. L. (1984). Content coverage and contextual reading in reading groups. *Journal of Reading Behaviour, 16*, 85–96.

Badger, L. (1984). Providing experiences for reading development. In *Early Literacy Inservice Course* (Unit 5, pp. 19–25). South Australia: Education Department of South Australia.

Brown, J., Goodman, K. S., & Marek, A. M. (1996). *Studies in miscue analysis: Annotated bibliography*. Newark, DE: IRA.

Bruck, M. (1988). The word recognition and spelling of dyslexic children. *Reading Research Quarterly, 23*, 51–69.

Cambourne, B. (1979). How important is theory to the reading teacher? *Australian Journal of Reading, 2*, 78–90.

Chall, J. S. (1967). *The great debate*. New York: McGraw Hill.

Chall, J. S., Jacobs, V. A., & Baldwin, L. E. (1990). *The reading crisis: Why poor children fall behind*. Cambridge, MA: Harvard University Press.

Clay, M. M. (1969). Reading errors and self-correction behaviour. *British Journal of Educational Psychology, 39*, 47–56.

Clay, M. M. (1985). *The early detection of reading difficulties* (3rd ed.). Auckland, NZ: Heinemann.

Crowder, R., & Wagner, R. (1992). *The psychology of reading: An introduction*. New York: Oxford University Press.

Davis, A. (1988). A historical perspective. In J. Estill Alexander (Ed.), *Teaching reading* (3rd ed., pp. 532–553). USA: Scott, Foresman & Co.

Foorman, B. R. (1995). Research on "the Great Debate"—Code-oriented versus Whole Language approaches to reading instruction. *School Psychology Review, 24*, 376–392.

Goodman, K. S. (1965). A linguistic study of cues and miscues in reading. *Elementary English, 42*, 639–643.

Goodman, K. S. (1969). Analysis of oral reading miscues: Applied psycholinguistics. *Reading Research Quarterly, 5*, 9–30.

Goodman, K. S. (1973). *Miscue analysis: Applications to reading instruction*. Urbana, IL: National Council of Teachers of English.

Goodman, K. S. (1974, September). Effective teachers of reading know language and children. *Elementary English, 51*, 823–828.

Goodman, K. S. (1976). Behind the eye: What happens in reading. In H. Singer & R. B. Ruddell (Eds.), *Theoretical models and processes in reading* (pp. 470–496). Newark, DE: International Reading Association.

Goodman, K. S. (1979). Reading: A psycholinguistic guessing game. In H. Singer & R. B. Ruddell (Eds.), *Theoretical models and processes of reading* (pp. 259–271). Newark, DE: International Reading Association.

Goodman, K. S. (1986). *What's whole in whole language*. Richmond Hill, Ontario: Scholastic.

Goodman, Y. M., & Burke, C. L. (1972). *Reading Miscue Inventory: Manual and procedures for diagnosis and evaluation*. New York: MacMillan.

Goodman, Y. M., Watson, D., & Burke, C. (1987). *Reading Miscue Inventory: Alternative procedures*. New York: Richard C. Owen.

Gough, P. B. (1993). The beginning of decoding. *Reading and Writing: An Interdisciplinary Journal, 5*, 181–192.

Gough, P. B., Alford, J. A. Jr., & Holley-Wilcox, P. (1981). Words and contexts. In O. J. L. Tzeng & H. Singer (Eds.), *Perception of print: Reading research in experimental psychology*. Hillsdale, NJ: Erlbaum Associates.

Hempenstall, K. (1999). Miscue analysis: A critique. *Effective School Practices, 17*(3), 85–93.

King, D. F., & Goodman, K. S. (1990). Whole language: Cherishing learners and their language. *Language, Speech, and Hearing Services in Schools, 21*, 221–227.

Levine, A. (1994, December). The great debate revisited. *Atlantic Monthly*, 38–44.

Lewis, L., & Paik, S. (2001). *Add it up: Using research to improve education for low-income and minority students*. Washington: Poverty & Race Research Action Council. [On-Line]. Available: http://www/prrac.org/additup.pdf

Lyon, G. R. (1999). *The NICHD research program in reading development, reading disorders and reading instruction*. [On-Line]. Available: http://www.ld.org/Research/keys99_nichd.cfm

National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, DC: U.S. Department of Health and Human Services. [On-Line]. Available: http://www.nationalreadingpanel.org

Nicholson, T. (1985). Good readers don't guess. *Reading Psychology, 6*, 181–198.

Nicholson, T. (1991). Do children read words better in context or in lists? A classic study revisited. *Journal of Educational Psychology, 82*, 444–450.

Nicholson, T., Bailey, J., & McArthur, J. (1991). Context cues in reading: The gap between research & popular opinion. *Reading, Writing & Learning Disabilities*, 7, 33–41.

Nicholson, T., Lillas, C., & Rzoska, M. A. (1988, October). Have we been mislead by miscues? *The Reading Teacher*, 6–10.

Pearson, D. (1976). A psycholinguistic model of reading. *Language Arts, 53*, 309–314.

Pressley, M. (1998). *Reading instruction that works: The case for balanced teaching*. New York: Guilford.

Rayner, K., & Pollatsek, A. (1989). *The psychology of reading*. Upper Saddle River, NJ: Prentice Hall.

Rayner, K., Foorman, B. R., Perfetti, C. A., Pesetsky, D., & Seidenberg, M. S. (2001). How psychological science informs the teaching of reading. *Psychological Science in the Public Interest, 2*, 31–74. [On-Line].

Available: http://www.psychologicalscience.org/newsresearch/publications/journals/pspi2_2.html
Rayner, K., Foorman, B. R., Perfetti, C. A., Pesetsky, D., & Seidenberg, M. S. (2002, March). How should reading be taught? *Scientific American, 286*, 84–91.
Routman, R., & Butler, A. (1988). *Transitions: From literature to literacy*. Portsmouth, NH: Heinemann Educational Books.
Savage, R., Stuart, M., & Hill, V. (2001). The role of scaffolding errors in reading development: Evidence from a longitudinal and a correlational study. *The British Journal of Educational Psychology, 71*, 1–13.
Schatz, E. K., & Baldwin, R. S. (1986). Context clues are unreliable predictors of word meanings. *Reading Research Quarterly, 21*, 439–453.
Share, D. L. (1990). Self-correction rates in oral reading: Indices of efficient reading or artifact of text difficulty? *Educational Psychology, 10*, 181–186.
Smith, F. (1975). *Comprehension and learning: A conceptual framework for teachers*. New York: Richard C. Owen.
Smith, F. (1978). *Understanding reading*. New York: Holt, Rinehart, & Winston.
Smith, F. (1992). Learning to read: The never-ending debate. *Phi Delta Kappan, 74*, 432–441.
Smith, F. (1999). Why systematic phonics and phonemic awareness instruction constitute an educational hazard. *Language Arts, 77*, 150–155.
Solman, R., & Stanovich, K. E. (1992). Information processing models. In N. Singh & I. Beale (Eds.), *Learning disabilities: Nature, theory & treatment*. New York: Springer Verlag.
Spear-Swerling, L., & Sternberg, R. J. (1994). The road not taken. An integrative theoretical model of reading disability. *Journal of Learning Disabilities, 27*(2), 91–103.
Stanovich, K. E. (1980). Toward an interactive-compensatory model of individual differences in the development of reading fluency. *Reading Research Quarterly, 26*, 32–71.
Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly, 21*, 360–406.
Sykes, S. (1991). A whole language perspective on reading and writing. *Australian Journal of Remedial Education, 23*(2), 23–27.
Tunmer, W. E., & Hoover, W. A. (1993). Phonological recoding skill and beginning reading. *Reading & Writing: An Interdisciplinary Journal, 5*, 161–179.
Vellutino, F. R. (1991). Introduction to three studies on reading acquisition: Convergent findings on theoretical foundations of code-oriented versus whole-language approaches to reading instruction. *Journal of Educational Psychology, 83*, 437–443.
Weaver, C. (1980). *Psycholinguistics and reading*. Cambridge, NM: Winthrop.
Weaver, C. (1988). *Reading process & practice: From socio-psycholinguistics to whole language*. Portsmouth, NH: Heinemann Educational Books.
Weaver, C. (1994). *Reading process and practice*. Portsmouth, NH: Heinemann.
Wren, S. (2001) Reading and the three-cueing systems. Southwest Educational Development Laboratory. [On-Line]. Available: http://www.sedl.org/reading/topics/cueing.html

MARK C. SCHUG, University of Wisconsin, Milwaukee

Statement to the MPS School Board

May 20, 2002

I'd like to express my views regarding the Balanced Literacy program proposed for the Milwaukee Public Schools. My main point will be to encourage the MPS Board of School Directors to reject the Balanced Literacy approach and substitute a results-oriented, incentives-based reading initiative.

Several schools within the MPS have had success in improving reading scores. These include Clarke Street, Dover, Elm, Honey Creek, Morgandale, Riley, Siefert, Westside Academy II, and several others. There are other schools, often nearby these successful schools, that are not successful. What could explain these different results?

We know from several national studies that some approaches to reading instruction are more successful than others. Research spanning several decades (see for example, Chall, *Learning to Read: The Great Debate*, 1967 and Ehri, Nunes, Stahl, and Willows, *Review of Educational Research*, 2001) shows that systematic phonics instruction helps children learn to read better than all other forms of instruction. Moreover, we know from dozens of studies, some including very large sample sizes and others using "effect size" analysis, that students who participate in a program called Direct Instruction, an approach associated with the work of Professor Siegfried Engelmann at the University of Oregon, learn to read better than students in other reading programs. Yet the success of Direct Instruction is ignored or aggressively excluded from consideration at the highest policy levels in Wisconsin, within the MPS, and at the University of Wisconsin, Milwaukee. Why such groups actively resist a reading program that is marked by school-based success stories, has strong supporting research, and is unusually effective with disadvantaged students, is a mystery.

Forecasting Failure

Here are six danger signs you should consider as you decide on approving the Balanced Literacy program:

Resist implementing a reading program when it is **difficult to define**. Balanced Literacy is a collection of appealing words (e.g., deep thinking and collaborative reading) that, when combined mean very little. The best one can say is that this collection of vague terms reflects a philosophy of teaching reading. This philosophy is closely associated with the whole language approach that has already failed

large numbers of young people throughout Wisconsin and in other states, most notably California.

Resist implementing a reading program that has **no body of research**. Balanced Literacy is a term that is nearly absent from the research literature regarding the teaching of reading. Common sense suggests that we ought to resist implementing any reading program until a body of credible literature (e.g., 25 to 50 empirical studies) exists. We should resist experimenting with MPS students who are often in danger of failing.

Resist implementing a reading program when it is nearly **impossible to train average teachers to use it**. Because Balanced Literacy is a muddled concept, teachers cannot be well trained in how to use it. Balanced Literacy is not a curriculum, it is an ideology. Teachers cannot be trained to use an ideology. Teachers can be trained to use a curriculum. But, literacy coaches and classroom teachers are not curriculum developers. They must work with students everyday. Curriculum development needs to be done by others. Balanced Literacy should not be considered by MPS until a complete program has been produced, successfully implemented, and evaluated elsewhere before it is tried here.

Resist implementing a reading program where **parents have not been heavily involved** . The proposed Balanced Literacy program is primarily the result of MPS curriculum leadership and the Milwaukee Partnership Academy. Parents were not involved in the process until relatively late. Balanced Literacy is not something advocated by large numbers of parents, teachers, or principals. Most of them seem puzzled by what Balanced Literacy is. It seems clear that the Balanced Literacy program is a "top down" initiative.

Resist implementing a reading program that has **no chance of reducing costs**. The number of students being classified as Learning Disabled is growing rapidly. Exceptional education programs as well as other remedial programs are expensive to operate. They drain resources from regular education. MPS could reduce its costs if children learned how to read the first time reading was taught. The failure to get it right the first time results in a growing number of students being classified as Learning Disabled or being referred to expensive remedial programs.

Balanced Literacy is not a curriculum, it is an ideology. Teachers cannot be trained to use an ideology. Teachers can be trained to use a curriculum.

Resist implementing a reading program where the **advocates are not accountable for the results**. Groups such as the University of Wisconsin, Milwaukee, the Metropolitan Milwaukee Association of Commerce, the Department of Public Instruction, and the Private Industry Council may be great community partners but these organizations are not the ones that Milwaukee parents, the mayor, the legislature, the governor, or the U.S. Department of Education will hold accountable for failure. While it is true that the organizations advocating Balanced Literacy have good intentions, they will not be the ones who are punished when Balanced Literacy fails.

Another Way to Take Action

Is there another way? I think there is. I propose that the funds about to be used to hire 150 Literacy Coaches be used differently. Here are some steps to consider:

Define MPS schools that have successful reading programs in terms of specific results. So, for example, schools where 75% of the students are proficient or above at Grade 4 might be classified as successful.

Reward now the schools that have established a track record of success. Offer them increased funds to train more teachers and expand their programs to serve more students.

Define MPS schools that have failed reading programs in terms of specific results. So, for example, schools where less than 75% of the students are proficient or above at Grade 4 might be classified as failing.

Offer strong financial incentives to assist failing schools that are willing to make changes. Principals and teachers in these schools should be invited to study the programs at successful MPS schools to see what these schools are doing right. The failing schools should be provided with the resources to allow them to implement the programs that have a track record of local success. If these schools become successful, then they too should be eligible for additional funding to expand their programs. If they fail after some specified period of time (e.g., 2 years?), they should be closed.

Conclusion

We know a great deal about the teaching of reading. We know that some programs—such as Direct Instruction—are more successful than others. Hiring 150 Literacy Coaches is not likely to produce success. Balanced Literacy is an ideology that is appealing to many progressive educators. It is not a curriculum to be implemented. Instead, the MPS should implement a clearly targeted, results-oriented, incentives-based reading initiative that focuses on how to multiply the successes already achieved by several local school principals and teachers. ~~ADI~~

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However, *Reading Success* **does not** replace any parts of any DI reading programs. Students apply their comprehension knowledge in a range of formats, increasing their ability to transfer knowledge to tests and other applications.

Reading Success is not a test preparation program. Rather, it teaches legitimate reading comprehension strategies thoroughly, in a variety of applications. A benefit of this approach is that students can then demonstrate their achievement in a wide variety of ways, including performance on many tests.

FREE TRIAL FOR YOU: Check our web site for more details on the program. Download the teacher's guide, or the first 15 lessons of the program. Try it out with your students. Contact us with any questions you may have. Then decide if your students would benefit from *Reading Success, Level A*.

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Register with ADI as a Referenced Consultant —

There is a great deal of interest in Direct Instruction programs today, and along with that interest there is a high demand for *qualified* consultants. We are quite certain that there are many great DI trainers out there that we do not know about. To help gather and disseminate this information, ADI is establishing a database of Direct Instruction program consultants (trainers). This data will be distributed via an ADI-published directory, the ADI web site, and used for any telephone referrals calls that come to ADI.

In order to have some quality control, we have devised the following requirements to be listed as a Referenced DI Consultant:

1. You must have a current membership with ADI.
2. You must provide us with three letters of reference or recommendation. These letters can be from school personnel, SRA personnel, etc.
3. You must complete the survey below and on the back of this page.
4. Send ADI a $25.00 fee to cover the costs of building and maintaining the database.

If you have any questions about this program, please contact Bryan Wickman at 1-800-995-2464.

ADI Direct Instruction Consultant/Coach Information Survey

Name _____

Street _____

City _____

State/Province _____ Zip/Postal Code _____

Home Phone _____ Work Phone _____

Email Address _____

Pager _____ FAX _____

Please check the appropriate boxes.

Reading Mastery I–III (And Fast Cycle)

- ☐ Information Presentation (e.g., one-hour presentation to adoption committee)
- ☐ Coaching (do demonstration lessons in classrooms, watch teachers, and give feedback)
- ☐ Training (stand-up training groups of people to use programs)

continued on next page

Reading Mastery IV–VI

- ❑ Information Presentation
- ❑ Coaching
- ❑ Training

Corrective Reading, Comprehension A–C

- ❑ Information Presentation
- ❑ Coaching
- ❑ Training

Reasoning & Writing D–F

- ❑ Information Presentation
- ❑ Coaching
- ❑ Training

Corrective Reading, Decoding A–C

- ❑ Information Presentation
- ❑ Coaching
- ❑ Training

Reasoning & Writing A–C

- ❑ Information Presentation
- ❑ Coaching
- ❑ Training

Horizons A & B

- ❑ Information Presentation
- ❑ Coaching
- ❑ Training

Connecting Math Concepts A–C

- ❑ Information Presentation
- ❑ Coaching
- ❑ Training

Spelling Mastery A–F & Corrective Spelling Through Morphographs

- ❑ Information Presentation
- ❑ Coaching
- ❑ Training

Connecting Math Concepts D–F (And Bridge)

- ❑ Information Presentation
- ❑ Coaching
- ❑ Training

Expressive Writing I & II

- ❑ Information Presentation
- ❑ Coaching
- ❑ Training

DISTAR Language I & II

- ❑ Information Presentation
- ❑ Coaching
- ❑ Training

Please list the titles of any other Direct Instruction-related workshops or presentations you do, and attach brief descriptions of each. (e.g., seatwork, a keynote-type of talk, supervision, training coaches, etc.)

Is there anyone you WILL NOT work for? (This information will remain confidential.) Any geographic area in which you WILL NOT work?

Please tell us as much as possible about your availability—or anticipated availability—for work as a Direct Instruction Consultant/Coach/Trainer/ "Information Presenter." For example, do you teach full time? Can you work five days a month? Ten?

Do you have experience implementing one or more levels of one or more Direct Instruction programs throughout a school? Please tell us about that, if applicable.

Everyone likes getting mail...

ADI maintains a listserv discussion group called DI. This free service allows you to send a message out to all subscribers to the list just by sending one message. By subscribing to the DI list, you will be able to participate in discussions of topics of interest to DI users around the world. There are currently 500+ subscribers. You will automatically receive in your email box all messages that are sent to the list. This is a great place to ask for technical assistance, opinions on curricula, and hear about successes and pitfalls related to DI.

To subscribe to the list, send the following message from your email account:

To: majordomo@lists.uoregon.edu

In the message portion of the email simply type:

subscribe di

(Don't add *Please* or any other words to your message. It will only cause errors. majordomo is a computer, not a person. No one reads your subscription request.)

You send your news and views out to the list subscribers, like this:

To: di@lists.uoregon.edu

Subject: *Whatever describes your topic.*

Message: *Whatever you want to say.*

The list is retro-moderated, which means that some messages may not be posted if they are inappropriate. For the most part inappropriate messages are ones that contain offensive language or are off-topic solicitations.

Summer 2003 Direct Instruction Training Opportunities

The Association for Direct Instruction is pleased to announce the following intensive DI training conferences. These events will provide comprehensive training presented by some of the most skilled trainers in education. Plan now to attend one of these professional development conferences.

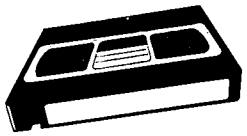
Save these dates

6th Southeast DI Conference and Institutes
June 10–13, 2003
Adams's Mark, Florida Mall
Orlando, Florida

8th Mountain States DI Conference
July 7–9, 2003
Antlers Adam's Mark
Colorado Springs, Colorado

29th National Direct Instruction Conference and Institutes
July 20–24, 2003
Eugene Hilton and Conference Center
Eugene, Oregon

8th Midwest Direct Instruction Conference and Institutes
August 6–8, 2003
Holiday Inn Mart Plaza
Chicago, Illinois



Videotapes on the Direct Instruction Model

ADI has an extensive collection of videos on Direct Instruction. These videos are categorized as informational, training, or motivational in nature. The informational tapes are either of historical interest or were produced to describe Direct Instruction. The training tapes have been designed to be either stand-alone training or used to supplement and reinforce live training. The motivational tapes are keynote presentations from past years of the National Direct Instruction Conference.

Informational Tapes

Where It All Started—45 minutes. Zig teaching kindergarten children for the Engelmann-Bereiter pre-school in the 60s. These minority children demonstrate mathematical understanding far beyond normal developmental expectations. This acceleration came through expert teaching from the man who is now regarded as the "Father of Direct Instruction," Zig Engelmann. Price: $10.00 (includes copying costs only).

Challenge of the 90s: Higher-Order thinking—45 minutes, 1990. Overview and rationale for Direct Instruction strategies. Includes home-video footage and Follow Through. Price: $10.00 (includes copying costs only).

Follow Through: A Bridge to the Future—22 minutes, 1992. Direct Instruction Dissemination Center, Wesley Elementary School in Houston, Texas, demonstrates approach. Principal, Thaddeus Lott, and teachers are interviewed and classroom footage is shown. Created by Houston Independent School District in collaborative partnership with Project Follow Through. Price: $10.00 (includes copying costs only).

Direct Instruction—black and white, 1 hour, 1978. Overview and rationale for Direct Instruction compiled by Haddox for University of Oregon College of Education from footage of Project Follow Through and Eugene Classrooms. Price: $10.00 (includes copying costs only).

Training Tapes

The Elements of Effective Coaching—3 hours, 1998. Content in *The Elements of Effective Coaching* was developed by Ed Schaefer and Molly Blakely. The video includes scenarios showing 27 common teaching problems, with demonstrations of coaching interventions for each problem. A common intervention format is utilized in all scenarios. Print material that details each teaching problem and the rationale for correcting the problem is provided. This product should be to used to supplement live DI coaching training and is ideal for Coaches, Teachers, Trainers. Price...$395.00 Member Price...$316.00

DITV—Reading Mastery 1, 2, 3 and Fast-Cycle Preservice and Inservice Training—The first tapes of the Level I and Level II series present intensive preservice training on basic Direct Instruction teaching techniques and classroom management strategies used in *Reading Mastery* and the equivalent lesson in *Fast-Cycle*. Rationale is explained. Critical techniques are presented and demonstrated. Participants are led through practical exercises. Classroom teaching demonstrations with students are shown. The remaining tapes are designed to be used during the school year as inservice training. The tapes are divided into segments, which present teaching techniques for a set of of upcoming lessons. Level III training is presented on one videotape with the same features as described above. Each level of video training includes a print manual.

Reading Mastery I (10 Videotapes) $150.00
Reading Mastery II (5 Videotapes) $75.00
Reading Mastery III (1 Videotape) $25.00
Combined package *(Reading Mastery I–III)* $229.00

Corrective Reading: Decoding B1, B2, C—(2-tape set) 4 hours, 38 minutes + practice time. Pilot video training tape that includes an overview of the *Corrective* series, placement procedures, training and practice on each part of a decoding lesson, information on classroom management/reinforcement, and demonstration of lessons (off-camera responses). Price $25.00.

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Conference Keynotes

These videos are keynotes from the National Direct Instruction Conference in Eugene. These videos are professional quality, two-camera productions suitable for use in meetings and trainings.

28th National Direct Instruction Conference Keynotes

No Excuses in Portland Elementary, The Right Choice Isn't Always the Easiest, and Where Does the Buck Stop? 2 tapes, 1 hour, 30 minutes total. Ernest Smith is Principal of Portland Elementary in Portland, Arkansas. The February 2002 issue of *Reader's Digest* featured Portland Elementary in an article about schools that outperformed expectations. Smith gives huge credit to the implementation of DI as the key to his students and teacher's success. In his opening remarks, Zig Engelmann gives a summary of the Project Follow Through results and how these results translate into current educational practices. Also included are Zig's closing remarks. Price: $30.00

Lesson Learned...the Story of City Springs, Reaching for Effective Teaching, and Which Path to Success? 2 Tapes, 2 hours total. In the fall of 2000 a documentary was aired on PBS showing the journey of City Springs Elementary in Baltimore from a place of hopelessness to a place of hope. The principal of City Springs, Bernice Whelchel addressed the 2001 National DI Conference with an update on her school and delivered a truly inspiring keynote. She describes the determination of her staff and students to reach the excellence she knew they were capable of. Through this hard work City Springs went from being one of the 20 lowest schools in the Baltimore City Schools system to one of the top 20 schools. This keynote also includes a 10-minute video updating viewers on the progress at City Springs in the 2000–2001 school year. In the second keynote Zig Engelmann elaborates on the features of successful implementations such as City Springs. Also included are Zig's closing remarks. Price: $30.00

Commitment to Children—Commitment to Excellence and How Did We Get Here... Where are We Going?—95 minutes. These keynotes bring two of the biggest names in Direct Instruction together. The first presentation is by Thaddeus Lott, Senior. Dr. Lott was principal at Wesley Elementary in Houston, Texas from 1974 until 1995. During that time he turned the school into one of the best in the nation, despite demographics that would predict failure. He is an inspiration to thousands across the country. The second presentation by Siegfried Engelmann continues on the theme that we know all we need to know about how to teach—we just need to get out there and do it. This tape also includes Engelmann's closing remarks. Price: $30.00.

State of the Art & Science of Teaching and Higher Profile, Greater Risks—50 minutes. This tape is the opening addresses from the 1999 National Direct Instruction Conference at Eugene. In the first talk Steve Kukic, former Director of Special Education for the state of Utah, reflects on the trend towards using research based educational methods and research validated materials. In the second presentation, ***Higher Profile, Greater Risks,*** Siegfreid Engelmann reflects on the past of Direct Instruction and what has to be done to ensure successful implementation of DI. Price: $30.00

Successful Schools... How We Do It—35 minutes. Eric Mahmoud, Co-founder and CEO of Seed Academy/Harvest Preparatory School in Minneapolis, Minnesota presented the lead keynote for the 1998 National Direct Instruction Conference. His talk was rated as one of the best features of the conference. Eric focused on the challenges of educating our inner city youth and the high expectations we must communicate to our children and teachers if we are to succeed in raising student performance in our schools. Also included on this video is a welcome by Siegfried Engelmann, Senior Author and Developer of Direct Instruction Programs. Price: $15.00

Fads, Fashions & Follies—Linking Research to Practice—25 minutes. Dr. Kevin Feldman, Director of Reading and Early Intervention for the Sonoma County Office of Education in Santa Rosa, California presents on the need to apply research findings to educational practices. He supplies a definition of what research is and is not, with examples of each. His style is very entertaining and holds interest quite well. Price: $15.00

Moving from Better to the Best—20 minutes. Closing keynote from the National DI Conference. Classic Zig Engelmann doing one of the many things he does well... motivating teaching professionals to go out into the field and work with kids in a sensible and sensitive manner, paying attention to the details of instruction, making sure that excellence instead of "pretty good" is the standard we strive for and other topics that have been the constant theme of his work over the years. Price $15.00

Aren't You Special—25 minutes. Motivational talk by Linda Gibson, Principal at a school in Columbus, Ohio, successful with DI, in spite of minimal support. Keynote from 1997 National DI Conference. Price: $15.00

Effective Teaching: It's in the Nature of the Task—25 minutes. Bob Stevens, expert in cooperative learning from Penn State University, describes how the type of task to be taught impacts the instructional delivery method. Keynote from 1997 National DI Conference. Price: $15.00

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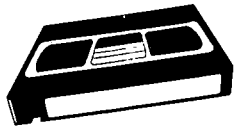

Videotapes on the Direct Instruction Model...continued

One More Time—20 minutes. Closing from 1997 National DI Conference. One of Engelmann's best motivational talks. Good for those already using DI, this is sure to make them know what they are doing is the right choice for teachers, students and our future. Price: $15.00

Keynotes from 22nd National DI Conference—2 hours. Ed Schaefer speaks on "DI–What It Is and Why It Works," an excellent introductory talk on the efficiency of DI and the sensibility of research based programs. Doug Carnine's talk "Get it Straight, Do it Right, and Keep it Straight" is a call for people to do what they already know works, and not to abandon sensible approaches in favor of "innovations" that are recycled fads. Siegfried Engelmann delivers the closing "Words vs. Deeds" in his usual inspirational manner, with a plea to teachers not to get worn down by the weight of a system that at times does not reward excellence as it should. Price: $25.00

Keynotes from the 1995 Conference—2 hours. Titles and speakers include: Anita Archer, Professor Emeritus, San Diego State University, speaking on "The Time Is Now" (An overview of key features of DI); Rob Horner, Professor, University of Oregon, speaking on "Effective Instruction for All Learners;" Zig Engelmann, Professor, University of Oregon, speaking on "Truth or Consequences." Price: $25.00

Keynote Presentations from the 1994 20th Anniversary Conference—2 hours. Titles and speakers include: Jean Osborn, Associate Director for the Center for the Study of Reading, University of Illinois, speaking on "Direct Instruction: Past, Present & Future;" Sara Tarver, Professor, University of Wisconsin, Madison, speaking on "I Have a Dream That Someday We Will Teach All Children"; Zig Engelmann, Professor, University of Oregon, speaking on "So Who Needs Standards?" Price: $25.00

An Evening of Tribute to Siegfried Engelmann—2.5 hours. On July 26, 1995, 400 of Zig Engelmann's friends, admirers, colleagues, and protégés assembled to pay tribute to the "Father of Direct Instruction." The Tribute tape features Carl Bereiter, Wes Becker, Barbara Bateman, Cookie Bruner, Doug Carnine, and Jean Osborn—the pioneers of Direct Instruction—and many other program authors, paying tribute to Zig. Price: $25.00

Order Form: ADI Videos

Use this chart to figure your shipping and handling charges.

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New from the Association for Direct Instruction
A tool for you...

Corrective Reading Sounds Practice Tape

Dear *Corrective Reading* User,

A critical element in presenting *Corrective Reading* lessons is how accurately and consistently you say the sounds. Of course, when teachers are trained on the programs they spend time practicing the sounds, but once they get back into the classrooms they sometimes have difficulty with some of the sounds, especially some of the stop sounds.

I have assisted ADI in developing an audio tape that helps you practice the sounds. This tape is short (12 minutes). The narrator says each sound the program introduces, gives an example, then gives you time to say the sound. The tape also provides rationale and relevant tips on how to pronounce the sounds effectively.

Thanks for your interest in continuing to improve your presentation skills.

Siegfried Engelmann
Direct Instruction Program Senior Author

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ADI Association for Direct Instruction

PO Box 10252, Eugene, Oregon 97440 • 541.485.1293 (voice) • 541.683.7543 (fax)

What is ADI, the Association for Direct Instruction?

ADI is a nonprofit organization dedicated primarily to providing support for teachers and other educators who use Direct Instruction programs. That support includes conferences on how to use Direct Instruction programs, publication of *The Journal of Direct Instruction (JODI)*, *Direct Instruction News (DI News)*, and the sale of various products of interest to our members.

Who Should Belong to ADI?

Most of our members use Direct Instruction programs, or have a strong interest in using those programs. Many people who do not use Direct Instruction programs have joined ADI due to their interest in receiving our semiannual publications, *The Journal of Direct Instruction* and *Direct Instruction News*. *JODI* is a peer-reviewed professional publication containing new and reprinted research related to effective instruction. *Direct Instruction News* focuses on success stories, news and reviews of new programs and materials and information on using DI more effectively.

Membership Options

☐ $40.00 ***Regular Membership*** (includes one year subscription to ADI publications, a 20% discount on ADI sponsored events and on materials sold by ADI).

☐ $30.00 ***Student Membership*** (includes one year subscription to ADI publications, and a 40% discount on ADI sponsored events and a 20% discount on materials sold by ADI).

☐ $75.00 ***Sustaining Membership*** (includes Regular membership privileges and recognition of your support in *Direct Instruction News*).

☐ $150.00 ***Institutional Membership*** (includes 5 subscriptions to ADI publications and regular membership privileges for 5 staff people).

☐ $30.00 ***Subscription*** 4 issues (1 year) of ADI publications.

✔ Canadian addresses add $5.00 US to above prices.

✔ For surface delivery overseas, add $10.00 US; for airmail delivery overseas, add $20.00 US to the above prices.

✔ Contributions and dues to ADI are tax deductible to the fullest extent of the law.

✔ Please make checks payable to ADI.

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ADI Books Price List

The Association for Direct Instruction distributes the following Direct Instruction materials. Members of ADI receive a 20% discount on these materials. To join ADI and take advantage of this discount, simply fill out the form and include your annual dues with your order.

Title & Author	Member Price	List Price	Quantity	Total
Preventing Failure in the Primary Grades (1969 & 1997) Siegfried Engelmann	$19.95	$24.95		
Theory of Instruction (1991) Siegfried Engelmann & Douglas Carnine	$32.00	$40.00		
Teach Your Child to Read in 100 Easy Lessons (1983) Siegfried Engelmann, Phyllis Haddox, & Elaine Bruner	$16.00	$20.00		
Structuring Classrooms for Academic Success (1983) S. Paine, J. Radicchi, L. Rosellini, L. Deutchman, & C. Darch	$11.00	$14.00		
War Against the Schools' Academic Child Abuse (1992) Siegfried Engelmann	$14.95	$17.95		
Research on Direct Instruction (1996) Gary Adams & Siegfried Engelmann	$19.95	$24.95		

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