“Raising Reading Levels in Inner-City Schools”
by William Labov University of Pennsylvania

Though much of what I’m going to say concerns findings of linguistic research that are quite surprising, I am going to begin with a statement on which we can all agree: “The failure of inner-city schools to teach children to read is among the most serious social problems that our country faces.” We believe that linguistic research can make an important contribution to solving this problem.

National Assessments of Educational Progress (NAEP) figures show that the minority differential in reading achievement is a persistent problem that has not changed in the least since 1979 (NAEP, 1998). Sixty-eight percent of Philadelphia school children are African-American, and in these schools a low rate of reading achievement is correlated with both poverty and minority status. In the fourth grade of most West Philadelphia inner-city schools with close to 100% African-American students, the majority fail to achieve reading skills that
are strong enough to allow them to use reading to learn math, science, or other subjects. In the Pennsylvania state report of reading scores for 1999, 141 of 156 schools were in the bottom quintile, and fourteen of the remaining were in the next lowest quintile. When we compare schools with 100% African-American enrollment with this general population, the results are substantially lower, so that in high school about 75% of the students in such schools are in the lowest 16th percentile. With such low reading skills it’s almost impossible for children to take advantage of the educational system to improve their life chances.

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I was fortunate enough to serve on the National Research Council Committee on the Prevention of Reading Difficulties in Young Children. The committee report (Snow et al., 1998) has many strong findings and recommendations which form the foundation of our research. But in so far as the minority differential in reading achievement is concerned, the report was only able to report the problem, not offer solutions to it. I and my colleagues are now engaged in the search for solutions to the problems.

The first and most important thing to point out is that we are not dealing with a general psychological problem. It is a problem of the English language. Learning to read in English is more difficult that learning to read in other languages. One reason is that the alphabet was created for languages with five vowels, while English has sixteen. Secondly, the history of English has complicated the sound-to-spelling rules by introducing spelling patterns from several different languages. As a result, even the most highly educated English speakers cannot easily decide how to pronounce the *g* in *gerbil* or *garage* or the *a’s* in *ambiance*.

Any effective reading method must then take into account the special character of the English language. Linguistic research gives strong support to the English alphabet in spite of the problems that I have just mentioned. The English language works surprisingly well when we consider not individual letters but how letters are used in combination. For example, the *silent-e rule* is an invaluable aid to the beginning reader who wants to know whether a vowel is long or short. By adding the letter *e* to a syllable, we turn *Jan to Jane, bit to bite and rod to rode*. As for the letter *c* many critics of the alphabet are annoyed that it has both the hard sound of *k* and soft sound of *s*. But it follow a perfectly simple and workable rule:

Before *a, o, and u*, *c* has the hard sound – like in *cat, cot, and cut*. Before *i, e, and y*, the letter *c* has a soft sound – as in *city, cent, and fancy*. This is one of the regular rules that we want children to learn and tutors to teach. But in the present situation, we find that neither children nor tutors know them.
Over the last three decades, linguistic research has explored the structure of the English sound system and it is now clear that the English spelling system is very well suited to the nature of the English Language. It follows the rule that words that mean the same (not sound the same) should have the same spelling. For example, the words telegraph and telegraphy both contain the meaningful unit telegraph, and in the spelling system, adding the suffix – y does not disguise this fact. But if English spelling were phonemic, and there was a 1 – to – 1 correspondence between sound and spelling, we would have telugraf and tulegrugy, where u would regularly represent the reduced vowel of about, or shwa. Children would then have to learn another set of rules, even more complicated than our present set, to connect telugraf with tulegruf. We conclude, then that the present morphphonemic system of English spelling actually makes it easier to read English that a phonemic system would be.

This is a major interference that can be drawn from the work of Noam Chomsky and Morris Halle in The Sound Pattern of English (1998). It is embodied explicitly in the communication that Chomsky made to the research group Project Literacy as long ago as 1970.

The Problem of learning to read is not solely a linguistic problem. It has many cognitive and neurological aspects. The psycholinguistic research of Isabelle Liberman and Donald Shankweiler, focusing on the concept of phonemic awareness, carried us deeper into the problem of acquiring literacy than traditional phonics programs (Liberman et al., 1974, Shankweiler and Liberman, 1989). Phonemic awareness depends upon the ability of a child to make a connection between the unconscious rules used in speaking and the representation of words on a page. This, in turn, implies an understanding of the ways the sounds are transformed in their sequential combinations. For example, a child that has developed phonemic awareness is able to recognize that the word drink begins with the letter d. Yet it is not easy to separate the d from the r, and to recognize that it is the same as the initial sound in duck, since the sound of d before r is quite different from the sound of a lone d before a vowel. A great deal of research has shown that measures of phonemic awareness – knowing how words and syllables are built out of consonants and Vowels – are among the best predictors of the success or failure to read. The NRC Report sums up much of this (Snow et al., 1998:151-154).

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Linguistic and psycho-linguistic research converge on the finding that the English alphabet is an essential tool for the beginning reader. Children who have lost confidence in the alphabet are at serious risk of failing to learn to read. But linguistics is not aligned with the “phonics” side of the reading wars. On the contrary, linguistic research points towards the resolution of that controversy. On
the one hand, the evidence accumulated so far indicates that direct instructions on sound-to-letter correspondences is efficient and effective in the early stages of learning to read (Foorman et al., 1998, Snow et al., 1998:175,176). On the other hand, decoding skills are of little use until they are as rapid and automatic as the rules that we use in speaking. This is not accomplished by decoding isolated words or nonsense words but by reading large amounts of meaningful and interesting text.

The linguistic approach to the teaching of reading therefore unites a focus on phonemic awareness and decoding skills on one hand and a focus on whole language on the other. Decoding here does not mean simply associating one letter with one sound. The English alphabet has a one-to-many and a many-to-one relationship with the sounds of the language. The diagraph th represents a single sound, but the phoneme long e has many different spellings in peer, fear, weird, and fierce. Even more difficult for the learner is the fact that many orthographic signals are discontinuous, as in the silent – e construction here, sincere, revere. Reading therefore requires the child to develop a deep theory about how sounds relate to letters. It therefore follows that differences in the way we speak might have something to do with problems in learning to read.

The first research I did on this question was in the late sixties, supported by the Office of Education in an effort to answer the question as to whether dialect differences could be responsible for the reading failure that we were witnessing in South Harlem Schools (Labov et al., 1968; Labov 1972). We came to the conclusion that there were very large systematic and regular differences between African – American English and other dialects. The problem then was to find out how and in what way these differences affected the process of learning to read. This is a problem that we’re still working on.

In the African – American Vernacular English that is widely spoken in most inner-cities, we find an extreme simplification of consonants at the ends of words that goes beyond the pattern of any other dialect. Thus the t in test may be pronounced less than 10% of the time, even at the very end of the sentence where it is heard most clearly in other dialects. In words like old, it is not only the d that is not pronounced, but the l is usually converted to a vowel, so that oh and old may be homonyms. Even single consonants may be deleted at the ends of words.

These differences in pronunciation intersect with differences in grammar. While African – American English has many features that are missing in other dialects, we find that many grammatical suffixes are absent that are used regularly in other dialects. While African – American children use the that signals possession at the end of a sentence (This is my mother’s) it is rarely used to relate two nouns (This is my mother cousin house). These grammatical differences may operate to increase the distance between the standard
These features of African-American English were first found in studies in the 1960's in the inner cities of New York, Philadelphia, Washington DC, and Los Angeles and have since been found to be quite uniform throughout the country. Almost identical patterns have been found by my colleagues John Baugh and John Rickford at Stanford University (Baugh, 1983; Rickford, 1999), Don Winford at Ohio State, Walter Edwards at Wayne State in Detroit (Edwards and Winford, 1991), and Walt Wolfram at North Carolina State (1969, 1992).

Do these patterns of speech make it more difficult to develop phonemic awareness? If so, how can reading methods take that into account? In a 1998 hearing of the Senate Education Appropriations subcommittee, Senator Specter asked me what reason we have to believe that we can improve reading by taking into account the home language of African–American children. I had to answer that we simply didn’t have this information. In the two preceding decades, the research on these questions was cut short by the strong emotions that were evoked by any consideration of African–American English in the classroom. Efforts to use contrastive analysis to improve the reading and writing of standard English were quickly misunderstood as instructions to teachers to speak in African–American English, and denounced as programs to teach children slang. In order to answer these questions, we began research in 1998 on ways of raising reading levels of African–American children in collaboration with the Oakland School Board and California State Hayward (supported by OERI) (Hollins et al.,2000).

Given the profound depression of the reading scores we've talked about, the question arises as to whether the children of inner-city schools are in fact dyslexic. Some researchers have argued that all the factors that interfere with reading – malnutrition, family stress, poor sleep patterns, over-crowed classrooms, shortage of teachers, and materials – inevitably result in symptoms similar to dyslexia. The end result is that children affected by these problems may not grasp the fundamental alphabetic principle that underlies the reading process.

The missing element in the approach to reading is that children must learn to go beyond the focus on individual sounds and letters, and learn how letters combine to represent sounds and meaningful words.

To answer this question, our current research begins with a more detailed analysis of reading errors that have been carried out in the past. We discovered that almost all of West Philadelphia children have in fact mastered the alphabetic principle. If a word begins with a single consonant, that consonant is read with a very small percentage of error. Error rates escalate with any complication in the consonant letters that begin or end a syllable or in the number of vowel
Figure 1 shows part of the initial reading profile for children in the extended time program for an elementary school in West Philadelphia. The horizontal axis shows increasing complexity of the initial consonant group as indicated by the word types \textbf{CAT, CHAT, CLAP, SCAT and SCRAM}. As the number of consonants in the beginning of the word increases, the mean error rates rise to almost 50%.

Figure 1

The problem with reading in these schools seems to lie primarily in the method of instruction rather than in the children’s mental abilities. A study of the phonics programs that were used in West Philadelphia schools shows that they concentrate almost all their time and effort on the beginning of words when in fact the problems created by these language differences are concentrated at the end of words. The reading methods that we are now testing in West Philadelphia give equal time to the beginning and end of the words, and teach children how to read initial consonants and final consonants in the same lesson.

Nevertheless, we find striking differences between the responses for final consonant clusters and initial consonant clusters. The reading improvements shown in Figure 2 are not matched by significant improvements in the decoding of the final consonant clusters. We can interpret this only as a reflection of the home dialect of the children on their ability to read Standard English, and we are currently developing methods that deal more directly with the dialect differences involved.
We have to recognize that the cognitive problems encountered in reading are only one aspect of the problem; the social dimension must also be considered. Research outside the classroom shows a majority of the children align themselves with a peer group structure that may be aligned for or against the goals of the adult community and the school system (Labov and Robins, 1969; Eckert, 1989). In the suburbs it is usually a small minority who usually align themselves against. In the inner-city areas it is a much larger group, often a majority.

Among those expelled and suspended at a very early age we find children with very strong verbal skills and intellectual abilities. It’s well known that the steepest downturn in the educational process occurs in the fourth grade. Here’s where the children must begin to read not only for practice but for content, and those who cannot will begin to feel most acutely the sense of failure. It is also the age where pre-adolescent peer groups are first fully formed, and the cultural conflict between children and the school system becomes most acute. Some believe that it is early failure in school achievement that leads children to reject reading in school programs as a whole. Others believe that there are social causes that go beyond the individual experience; the work of John Ogbu (1982) points in this direction. Any research program that ignores the existence of these cultural conflicts will be attacking only part of the problem.

In this brief summary, I have tried to present an outline of the ways in which linguistic, psycholinguistic, and sociolinguistic research bears on the reading problem. Our current research in West Philadelphia attempts to apply this knowledge. Our individualized reading program begins with a linguistic analysis of children’s reading errors and guides them to an understanding on how the alphabet operates. Both direct and indirect instruction is designed to embed this knowledge in texts and narratives that engage the central interests and concerns of these children. So far the results have been
encouraging. In October of 1999, it was announced that the Davis School had achieved the highest improvement in reading scores of any school in the state.

Our current research is designed to expand these methods to help struggling readers of Latino background, comparing the reading errors and cultural context of Latino children with those of African–American children. Our colleagues in the Bay area, Professors John Rickford and John Baugh and Professors Guy Bailey and Robert Bayley at the University of Texas, San Antonio, are joining with us in applying these methods in communities where Latino children form the majority.

Finally, there are a number of unanswered questions that a linguistic approach to raising reading levels must address:

1. **Increasing vocabulary:** So far, we have applied our efforts to teach children how to recognize words on the printed page that are part of their active vocabulary. But increasing vocabulary is an essential part of the educational process. How can decoding skills help children read words that they do not know?

2. **Dealing with exceptions:** We have had considerable success in getting children to make use of the most regular rules of English orthography. But improvements in reading are only moderate for irregular vowel pairs that have irregular and unpredictable relations to sounds, like 00 in *mood*, *flood*, and *blood*. What strategies will help children deal with the most irregular parts of the English spelling system?

3. **Motivating poor readers:** The stories we have written are interesting and motivating for those who can at least begin to decipher them, but many children remain. How can we restore confidence in the alphabet for those who have fallen farthest behind in their reading skills?

4. **Bilingual programs:** As we adapt our methods of teaching reading for Latino children, we encounter the problem of literacy in bilingual education. The question that is frequently posited, but not answered in any definitive way, is whether learning to read first in Spanish accelerates learning to read in English.

5. **Dialect differences:** The problem still remains of accounting for the extent to which dialect differences account for reading problems. The most immediate problem is to answer the question, Do Latino and non-Hispanic white children show the same profile of reading errors as African-American children?

6. **Cultural differences:** Probably the most profound and difficult issues concern the cultural differences that underlie many conflicts within the classroom. *If linguistics is to make an effective contribution to the teaching of reading, we must be sure that our reading materials address the cultural and emotional concerns of the children we are dealing with.*

How can methods of teaching reading be adapted to take into account the cultural differences that exist in our society, and yet bring everyone to the common goal of learning to read and write the standard language? This
question carries us to the broader areas of sociolinguistic research that describe the social values attributed to dialect differences and how they affect both teachers and students.

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Read on for more MISCELLANOUS INFORMATION

PROJECTED SOCIAL CONTEXT FOR EDUCATION OF CHILDREN: 1990-2015
by George Vernez and Richard Krop,

The report notes:
"To better understand the nature of this challenge, the National Task Force on Minority High Achievement of the College Board has asked RAND to assess the possible changes in the racial/ethnic composition of the under-24 population of the United States between 1990 and 2015, broken down by social class within each racial/ethnic group. Understanding how the student-age population may change simultaneously along these dimensions has potentially important educational and social policy ramifications for several reasons. First, there continue to be significant differences in educational outcomes among racial/ethnic groups in the United States. Second, research has consistently found that students' educational attainments (years of schooling and degree levels) and academic achievement (grades and standardized test scores) are significantly associated with two primary measures of social class -- parent education and family income. Third, there continue to be major differences in the social class composition of racial/ethnic groups in America."

Dr. Labov is not a reading expert.

Labov’s project is being sponsored by the Office of Educational Research and Improvement (OERI), in connection with the partners at the Oakland School Board and California State University at Hayward. They are conducting a linguistic component and the research has been concentrated over the last two years (1998 – 1999) in two West Philadelphia PA schools where they are working with children in the second and fifth grades who are one to two years behind. Tina Baker is the architect of that design.

Dr. John Rickford http://www.cyberpq.com/Linguistics/Home_Linguistics.html is sending results of tests using the same materials, diagnosing error patterns with Latino children who are just starting we are just starting to look at.

We are about four years in developing the materials.
Many research projects have been aborted because wave after wave of reactions occurred in the U.S. about what type of language would be spoken in the classroom. In fact, people use every regional dialect in the classroom. But when you give official status in some ways to a listed or not listed dialect you’re going to get a tremendous split.

I would like to address what people should not do. They are not going to change the overall social linguistic reaction of Americans to language diversity in the next five or ten years. But we absolutely must change the reading levels. I think it’s extremely important that we eliminate from our discourse of discussion what type of language would be used in the classroom for speaking, and focus on reading and writing which are the essential roads to success. Our colleagues at the Oakland unified school district have a very good program with respect to diversity and to the languages of African – American children. That program would not have much success in Philadelphia because we have extremely conservative attitudes among teachers. Though I am very much in favor of it, our own program says: Let’s not get confused by the kind of thing that confused people in the Ann Arbor decision. Let’s not get confused by the types of issues that the Ebonics controversy aroused. Let us concentrate on reading and writing. Let the American public know that we all agree on purposes to teach people to read and write Standard English.

Most people who have been working with our method are American Reader Volunteers. Indeed I noticed in the performance work out of Texas, these are volunteer teachers who were trained. In addition to the manuals which the children use and the students learn from, we have training programs in a wide variety of tutoring methods. We want students to know those alphabetic relationships that linguists know are still a problem, but we’re making some progress. The idea of getting to people some ideas of the complexity of the English alphabet still has a way to go. I think that the American volunteer system is working well. Particularly college students and minority students, a majority of African – American students are thrilled to discover that is spite of the terrible reading situation they are making contributions to it. Our students tell us over and over again that this has been one of the most rewarding parts of their college experience. As we move in to the community and we get language interns and get other people to act as these new trainees, it’s no big question how much enthusiasm and excitement that linguistic information carries.