This paper discusses some of the larger trends in present day American society and education, indicates how these trends are affecting reading, and points out some possible directions for future development. The trends discussed include "Sex Equality," which discusses sexism in basal tests, male teachers of reading, and the greater number of boys with reading difficulties than girls; "Accountability," which looks at teachers' objections to accountability, assessment of pupils' reading competence, and experimental techniques of teacher evaluation; "Career Education," which presents the basic design of career education and discusses its relationship to reading instruction; "Poverty: Disadvantaged Children," which discusses trends in teaching reading to the disadvantaged and reviews some research; "Cultural Diversities in Language," which discusses how dialects affect reading in standard English, recent reading approaches developed for dialect speakers, and trends in teaching reading to non-speakers of English; "Increased Attention to Child Development," which discusses teaching reading to preschool children and kindergartners; and "The Technological Revolution," which discusses the use of computers, television, and satellites for teaching reading. (WR)
Session: Friday, May 3, 10:45-11:45

READING INSTRUCTION: PRESENT AND FUTURE NEEDS AND TRENDS

In this talk I plan to discuss some of the larger trends in present-day American society and education, indicate how these trends are affecting reading, and point out some possibilities of their future development.

SEX EQUALITY

The big drive, which is now onto establish equality of the sexes was evidently promoted by "Woman's Lib." Like other national movements this one is affecting students and schools.

Even the youngest children have biased sex images. A nursery school teacher said to her group one day, "Do you know that one of the first persons to fly in space was a woman in Russia? Without hesitation a four-year-old male chauvenist retorted
"It couldn't happen in this country." He was boasting of masculine superiority in his own country.

In a study (28) on the image of pre-kindergarten girls and boys, it was found that four-year-olds and five-year-olds have stereotyped images of themselves and their parents. In general, girls as well as boys believed that males were smarter, stronger, fixed cars better, drove better, worked better, and were better in general, though females cooked better!

Studies in older grades also reveal that boys are imaged as strong, versatile, and competent and girls as mild, meek, doing a limited number of mild, passive things.

Staffing in schools shows sex differences. Teachers and school administrators fall predominately into two groups—female and male. In 1971 Scholastic Magazine presented statistics showing that 85 percent of elementary teachers were women and 75 percent of principals were men. While the teacher is the leader in her classroom, her superior—the one issuing directives and making decisions is most often a man.

For many years we have been hoping to have more men in the elementary grades. Now they are being urged to teach at this level. At the present we are hearing, once in a while, about a man teacher in a nursery school. It seems that he is the subject of much criticism from the women teachers (27). Recently a group of three male nursery school teachers in a large city met together for a conference. They complained that they felt lonely, isolated and like outcasts in their respective schools. The primary teachers did not
accept them and told them bluntly that men had no place in a nursery school, and that a woman should teach these young children. So bias will probably arise especially about having male teachers at the earlier levels. However, in view of increased divorces and fatherless homes it would probably be very good for these younger children to have a father-substitute at school.

Now, how will these new trends affect reading? For one thing research has shown that many more boys than girls are failures in reading. Some educators think that the boys will identify more closely with men teachers, be happier in working with them, and put forth more effort in learning to read. We have no evidence on this at present but it is a possibility.

Textbooks up to this time have in most cases helped to promote sexism in their content and pictures.

Myra and David Sadker (33) report the study of a committee who analyzed 144 basic reading texts currently used in the schools. They found 881 stories about boys and only 344 in which girls functioned as the main character.

Marjorie U'ren (42) analyzed pictures in basic reading texts and found that only 15 percent of text illustrations are of girls and women, and the most important illustrations—those on book covers or chapter headings—are invariably of boys and men.

In the future the present trend toward employing more men teachers will undoubtedly increase greatly in strength and implementation. Publishers of reading textbooks are hastening to revise their publications in the interest of giving equal recognition to
girls as well as boys in pictures and content. Probably supplemental books for reading on the subject of equality of sexes will soon appear. Teachers will become more keenly aware of equality in the sexes and will strive to promote this concept in their classes.

I think we would be safe in predicting that this movement will endure and will affect schools and teaching in many ways during the years ahead.

ACCOUNTABILITY

Accountability in Education first appeared in 1970 following President Nixon's announcement "School administrators and school teachers are responsible for their performance, and it is in their interest as well as in the interest of their pupils that they be held accountable." Since that time the accountability movement in education has become strong and the general term has come to embrace several forms of implementation such as performance contrasting, performance based teacher education, competency based teacher education, etc. Practically all of these involve reading results and reading instruction.

In ascertaining reading competency in the elementary grades, often in junior high, sometimes in senior high and even in college, reading tests are used. Many people complain that the tests used for this purpose, usually do not measure depth in comprehension, interest in reading, variety in choices of the kinds of reading done, and other factors important in reading competence. Many teachers complain that their competency should not be determined by the use of inadequate tests.
They also feel that it is unfair for them to be expected to get high results with all children. There are differences in the nature, background and ability of children within a classroom and in entire classes. It is impossible to show a high degree of improvement in all cases.

Yet in some schools teachers do not receive increases in salaries and in a few places you are dismissed for incompetence largely on the basis of results from tests which are inadequate. Many other teachers are worrying lest this might happen in their schools.

This situation has its light moments, though. I recently heard a teacher who works in such a school say of a teacher that "she left in the same way that she came." "Fired with enthusiasm."

Several schools are experimenting in attempts to find better techniques of evaluation but none have proved to be entirely satisfactory, for example: several schools have tried having teachers evaluated by their students, or by their superiors or other teachers. A recent report states that research has shown students tend to agree on their ratings of teachers and that teachers who are ranked highest by pupils tend to evoke the highest pupil achievement gains. In contrast, evaluations done by superiors or other teachers do not correlate with pupil gains, the report says. It also notes that "teachers have, for the most part, resisted the move toward students evaluating them while espousing the cause of teacher evaluation of principles and supervisors." (335)

What about the future of accountability?
Hettleman (21) says: "This all looks promising for those who need rigid controls on education systems to increase the efficiency of their reporting methods, but at the same time it promises a significant reduction in the quality of education. What we are now viewing in the rising accountability movement is one more obvious result of what can happen to schools as long as teachers are viewed as the least important resource in seeking answers about the improvement of education. What is needed is a reduction of funds spent for the measurement fanatics, and an increase of funds spent in finding ways of surfacing and implementing the ideas of practicing teachers."

A more positive report comes from San Diego where a three-year plan of evaluation was worked out jointly by members of the certified staff and administrators.

Bennett (2) says of this plan, "Although the evaluation was imposed, from outside by the state, the program provided an opportunity to get feedback both from teachers and administrators. Each of them came to the conclusion that time was well spent and at the end of the year brought a sense of accomplishment and in achievement of objectives recognized by their colleagues."

Concerning the future I would say that accountability has a strong foothold throughout the United States and any concept designed to control expenditures in terms of production is not likely to be dismissed lightly. It seems clear, however, that means of implementing the concept will need to be improved in several ways.
These improvements probably will relieve the anxiety of some reading teachers who feel that they are being evaluated unjustly on the basis of reading test results, which are considered in many cases as one of the most important factors or perhaps the most important factor in judging their competence.

I believe accountability is a concept in transition and with improvements it probably will survive and prove to be useful.

CAREER EDUCATION

Career education is receiving a big thrust at the moment (6, 26). Until very recently career information was confined to a vocational class in secondary schools. Now we are urged to include it in all grades from kindergarten through twelve, and even in post-secondary courses for adults.

It is difficult to find a definition of career education. The best one I ran across is one from Wesley Smith (38) who states that:

"Career education is a comprehensive, systematic, and cohesive plan of learning organized in such manner that youth at all grade levels in the public schools will have continuous and abundant opportunity to acquire useful information about the occupational structure of the economy, the alternatives of career choice, the obligations of individual and productive involvement in the total work force, the intelligent determination of personal capabilities and aspirations, the requisites of all occupations, and opportunities to prepare for gainful employment."

Sidney P. Marland, until recently the government's top educational official, tells us that more than 20,000 jobs have
been identified. He had a team codify 15 major groupings which they called "clusters." These clusters form the basis for career education in most schools.

In general "career awareness is emphasized in kindergarten through sixth grade. Concepts are introduced to children about work and jobs, the need for work and the many ways in which people earn a living. In kindergarten, for example children might study the work of different helpers in their school—custodian, the woman who cooks and serves school lunches, the school nurse, principal, teachers at different levels, etc., observing what these people do, talking with them, and listening as each comes to their classroom and tells about his experience and training for his job.

An example of study of the health cluster in a fifth grade involved an exploration of the systems of the human body—respiratory, circulatory, digestive, muscular, skeletal, nervous, excretory and reproductive.

In grades seven through nine, students narrow down to two or three job clusters, which they explore in depth. In addition to reading and field trips they often do role playing. For one example, they sometimes set up and run a simulated hotel in the classroom.

In high school, students acquire job skills such as typing, auto mechanics, electronics, drafting, etc. The idea is to get all students to pursue training leading directly to a job after high school or to further training at a technical or business school or to a two- or four-year college.
What does all of this have to do with reading? It means that we as teachers must prepare children to read for deeper meanings in informative material and to make very good use of the study skills, for to be successful in most jobs it is especially necessary that job holders be able to keep alert to the many changes in their particular job fields. To children in school the advantages of reading in career education is that it is relevant and functional and these two attributes are basic in attaining reading achievement.

As for the future of career education—will it last or is it just a fad? Some people object to this concept. A few teachers say they have more than they can do in teaching the subjects without adding something additional. Proponents say that in career education all of the subjects can be taught because this concept is so broad. Others say the programs are basically anti-intellectual, merely trying to get people into jobs and conditioning them to a life in the marketplace. Proponents say it is definitely intellectual in that each cluster leads into much study of current life.

Objectors constitute an exceedingly small number in comparison with the very large numbers of enthusiastic proponents, not only among teachers and educators holding high rank positions but apparently also among parents.

Congressman Roman Pucinski says:

"My son is in the ninth grade. This year he is taking French. I have no quarrel with French, for I want my son to be bilingual."
But I would feel a great deal better living in an industrial empire which will have a $2 trillion economy in the 1980's if instead of French my son were taking career education. I am not being anti-intellectual. If my son wants French, let him go to Berlitz. For career education, he needs the public schools."

Of course it might be added that the son could have career education and still take French.

In regard to the future of career education; with parents supporting the concept, heavy funding from the government, some states requiring it in all schools, large numbers of teachers choosing to teach it of their own accord, it does have promise of staying with us for quite awhile.

POVERTY: DISADVANTAGED CHILDREN

Life in the United States changed when the new independent nation was established, it changed again when the immense Western frontier was being settled, it changed again when its great Agrarian society became urbanized and industrialized. The most startling change that has come, however, as a result of the present technological revolution. This drastic and sweeping change made helpless many who had not the skill to run the new machinery, the managerial ability to produce and market goods, the education to hold the rapidly increasing jobs that require high school or college education.

This change struck its first devastating blows with the great black population of the deep South, later it had similar
effects with the whites in the quiet hills of Appalachia, the Puerto Ricans on their beautiful green island, Mexican-Americans in the great expansiveness of the Southwest, and the Indians on their secluded reservations. Some, a few, have stayed on in their native locale; thousands, in fact millions, have moved on to towns and cities in the hope of finding work and living a better life, only to discover in many cases that this hope was just a shining chimera which vanished as days passed by in the new location.

The situation for these people is improving, some still do not have jobs. As teachers we have children with us whose parents may have jobs now but whose children bear the scars of suffering from poverty in their earlier years; and we also still have those suffering from living in poverty or on a very low economic level. There are even more Caucasians living in poverty than all of the other racial groups. By and large it is the children from all these poverty or near poverty homes who are the so-called "disadvantaged" or "culturally different" pupils.

Trends in Teaching Reading to the Disadvantaged

Poverty has always been with us. It has been accepted as a part of the social structure and nothing was done about it. Recently, however, the whole world has become concerned about poverty and most nations are striving to improve this situation.

As one reflection of this rising interest in poverty in general, together with research revealing a high percentage of failure in the reading of disadvantaged children, concern
has developed in regard to giving special attention to improving reading instruction with these children.

Most teachers are striving to do this by working harder in trying to teach them to read. This is desirable but there are some basic needs of disadvantaged children which underlie their difficulties in learning to read. These should have as much attention as working with the reading process itself. These factors are low self-concepts, impoverished environment and poor health.

Studies and experience have shown that most disadvantaged children have low-concepts of themselves. No doubt many of these children came from homes in which their parents have a negative attitude toward social adequacy, and they too reflect this attitude in their own low concepts of themselves. It is also possible that many of them have had low concepts of themselves for sometime before they entered school but are not really conscious of personal inadequacies until they begin to undertake school learning tasks.

Studies (24, 25) have revealed a significant relationship between positive self-concept and success in reading. The child with a good self-concept is also a good reader.

In the light of all the evidence at hand it surely appears highly desirable for teachers of reading to encourage disadvantaged children to improve their self-concept. Some teachers unwittingly militate against positive self-concepts in their attitude toward the children.
The child from the disadvantaged home often comes to school in the first place set not to learn and he thinks he can't learn. His first learning task is associated with reading. He doesn't do well. His self-concept in reading is lowered at the beginning. If his teachers think "He's disadvantaged. What can you expect?" his self-concept grows lower and lower. As he passes through the grades eventually he may drop out of school mainly because he couldn't read well enough to do his school work.

Not only should the teacher show confidence in such children by their own attitudes but they should do specific things such as praising the child for very small achievements in reading, giving him or her opportunities to excel in other activities such as drawing, dramatics, playing certain games, assigning simple tasks that he can perform, consulting with parents about the importance of a good self-concept and things that they can do in developing it in their child.

Now on to impoverished environment, which also has a relationship to reading achievement.

Studies (10, 28) of the homes of disadvantaged children have revealed that they have fewer books and toys, have minimum of conversation with parents, and there is so much noise they tend to "tune-out" what they hear.

The effect of this environment is pointed out in Moore's longitudinal study (29) in which he found that lack of books, toys, experience and language stimulation in 2½ year-old children were significantly correlated with reading at 7 years.
Teachers need to supplement the home environment with numerous and varied language experiences, abundant trips into the community and a quantity of interest-compelling, concept-forming and information-giving books.

The health needs of such children deserve special consideration, for their defects in this area are highly prevalent.

Havinghurst (20) found 3957 defects in 2960 disadvantaged children entering kindergarten or first grade. This indicates that some of these children have two or three defects at the same time.

Bradshaw conducted a study of indigent families living in one location in Florida. He found that infants as well as older children had many illnesses. The parents, also experienced a wider range of diseases and illnesses such as asthma, arthritis, tuberculosis, cancer, strokes and what they called "high blood," and "very close veins."

Morris (30) compared health defects of 400 poor readers in a clinic with 400 normal readers in schools. He found that the poor readers had many times more health defects than good readers.

It is evident from many studies that poor health is common among the disadvantaged. Since robust health and abundant energy are an asset in learning to read, the teacher should do all that she can to promote good health in these children, not only as an aid to them in learning to read but also for their general welfare.

The trend at present is for teachers to send children who have an obvious sickness to the school nurse. There is need for
teachers to probe more deeply than this. They need to be continuously on the alert for symptoms of physical defects and diseases and to get individuals who show even slight evidence of such symptoms into the hands of competent medical help as speedily as possible.

In summing up, research has shown that three factors—low-concepts, impoverished environment, health defects—interfere with reading achievement. To be successful in teaching reading to the disadvantaged in the future we should strive to improve each of these conditions and not labor under the impression that just teaching reading, itself, will do the whole job.

CULTURAL DIVERGENCIES IN LANGUAGE

Throughout American history no attention was given to school children who speak dialects and to speakers of other languages until the late 1950's. About this time a strong national movement began concerning measures to take in improving the relationship, status and education of the multi-racial groups in our country. Concurrently tests revealed that children with dialects which departed widely from standard English and speakers of other language often failed in reading. As a result of these two influences, a few schools here and there put forth special effort to meet these problems. Now this movement is becoming increasingly widespread.

Trends in Teaching Children Who Speak Dialects to Read in Standard English

Usually it is those of the lower, uneducated social class that speak dialects which differ widely from standard English.
Most of them are found among the disadvantaged, and need all of the background helps suggested for them, and in addition special assistance in transferring from their native dialectal language to standard English in speaking and reading.

The lower economic class of Blacks and of Appalachians constitute the major groups of dialect speakers in our country. There are, however, quite a number of Mexican-American and Puerto Rican children who speak the dialect of parents who have learned to use English but with dialects influenced by their native Spanish language.

How do dialects affect reading in standard English? For one thing children who speak a dialect use a language system which is different from that used by speakers of English. If they are plunged immediately into reading standard English they face a double learning task—that of learning to read and at the same time learning a different language.

In the past teachers considered a dialect to be incorrect language and corrected what they considered to be errors in speech. Many teachers still have this concept. If children have a teacher who does not accept their dialect and continually corrects them, they are apt to develop feelings of inferiority and experience a lowering of self-concept which is another hazard in learning to read.

Many children who have encountered this situation while, at the same time, trying to read in standard English make little reading achievement in first grade. Never-the-less, due to grading and promotion policies in numerous school systems they are passed
on through the elementary grades ever continuing to be poor readers, until perhaps they drop out at junior high or are assigned to a specialist for remedial reading. Their school life often consists of a series of frustrations, failures, and unhappy experiences. The dialect problem is by no means confined to reading in first grade. It extends throughout the school-years in reading and English and since these subjects are so basic, it affects the other subject areas as well.

In attempts to meet the dialect problem several recent approaches are now in use.

One group of educators advocates immersion in the English language during preschool years and a readiness period in first grade, then beginning to read at once in standard English. Early immersion in language is highly desirable in all cases, but as the only preparation for dialect speakers to read in standard English it has yet to yield conclusive results. Some reason that so short a period is not sufficient for developing fluency necessary in reading standard English texts.

Many important linguists in the field, differ in some details of procedure, but are agreed on the basic procedure of: (1) accepting the children's dialect, (2) giving them opportunities to read in their own dialect, (3) transferring their reading ability to standard English as time and expediency permits.

Stewart (40) tells of an experience which he had that convinced him of the desirability of this procedure.

He was working at home with a translation in standard English of a poem, the original of which had been written in Negro dialect.
(The translation was in his typewriter, the original beside it on the desk). Two inner-city children dropped in for a visit. While Dr. Stewart went to the refrigerator for refreshments, Lenora (12 years old and a serious problem reader in school) went over to play with the typewriter and found the draft of the non-standard version of the poem and began to read it. Even though she was an extremely poor reader in school she read this dialect version of the poem in a steady voice, her word reading was accurate, her sentence intonation was natural. She read very well. This unexpected success surprised her and she began to discuss it with her little brother. They decided there was something different about the text but couldn't tell what it was. To compare, Stewart then asked Lenora to read the standard English version of the poem. When she did, all the "problem reader" behaviors returned.

In the future I suspect that some forms of procedure will be used generally in which we help dialect speakers to be proud of their natural heritage and at the same time inducting them into the culture of mainstream Americans, the majority of whom speak Standard English. We haven't done a very good job of implementing this double goal as yet but we are improving and that is a good trend.

Some excellent studies (9, 22, 23, 37) have been made concerning the language system of Negroes who speak dialects by Dillard; Labov; Shuy, Wolfrom and Riley, and others. Stewart has given us a good discussion on "Language Learning and Teaching in Appalachia." Teachers of dialect speakers should read references
of this type and keep themselves informed concerning developments. Much more research is needed to ascertain which approaches are most successful.

Trends in Teaching Reading to Non-Speakers of English

There are large populations of Spanish-speaking Puerto Ricans in New York City, and other cities of the East. Concentrated in the Southwestern states are extensive populations of Mexican-Americans who speak in their native Spanish language. The migration of Cubans to Florida adds to our Spanish-speaking population. Pockets of foreign-speaking children are found among Scandinavians in the Northern Middle states and French in New England. Increasingly emigrants from other countries—especially Germany, Holland and Portugal are coming to the United States and settling in various places.

In addition to children from all these foreign-speaking sources we have our Indians settled on reservations in various places, who "spill over" into nearby states, also our Eskimos in Alaska, and multi-racial groups in Hawaii, all of whom speak a language totally different from English.

The many speakers of other languages in our country constitute a serious educational problem and one that is much more widespread than many people suspect.

Speakers of other languages like speakers of dialects are hampered in learning to read in English and having to acquire a second language at the same time, except that the dialect speakers
already have a basic English language to start with, while the non-bilinguals have to learn a totally new language as well as learning to read in English. This is a double accomplishment for a child to undertake and should be handled with skill.

Unfortunately in many cases these children are simply placed in classes with the other children where nothing special is done for them. According to recent trends, however, English is definitely taught to these children. Many different approaches are used. Insofar as reading is concerned one approach is to teach English in Nursery school and kindergarten, and as long as is necessary in the grades before reading instruction. Another approach is to have children read in their own language preceding or along with reading in English. This plan is often hampered because the reading teacher isn't acquainted with the children's language.

In the future it is suggested that primary teachers not familiar with the language of non-speakers of English in their particular communities, take a college or in-service course in that language.

The procedures for teaching non-speakers of English to speak and read in English is improving. No doubt they will continue to improve in the immediate years ahead.

LINGUISTICS

In the preceding section we discussed the trend toward language improvement in English for different racial groups. The linguists are not only interested in these groups but also in language improvement for groups who already speak English. In fact
the dispersal and use of linguistics in all languages at all levels is a rapidly growing trend.

Linguistics covers a very broad and complex area. It is the scientific study of language embracing the many phases and aspects of this subject. I suspect that when some teachers think of applying linguistics to their reading instruction they feel like the man who was asked "How do you get to Milltown?" He replied "You go up this road to the first crossroad and turn right;" "No, you turn left;" "No, you go straight ahead;" "Oh no, you can't get to Milltown."

Recent writings and research of the linguists are beginning to clear up this situation.

It was in the early 1960's that the topic of linguistics as applied to the teaching of reading emerged. Now, however, discussions of this subject appear in abundance in current periodicals and textbooks, and it is a popular topic in educational convention programs. In the meantime, however, ideas of many linguists concerning the application of linguistics to reading instruction have changed.

The first publication for children using a linguistic approach was published in 1961. It was titled Let's Read: A Linguistic Approach and was authored by Leonard Bloomfield and Clarence Barnhart (3). Its content consisted of lists of words and short sentences based on sound correspondence of words of regular spelling such as "bat, cat, fat, rat, etc. In working with material of this type no attention was given to meanings. The child simply read
orally changing the printed phonemes into speech.

At least six series of readers using an approach based on regular spelling patterns have now appeared and are used widely.

In contrast to this approach many linguists at present would organize reading instruction in terms of: 1. surface structure dealing with sounds of language and written representation of language, and 2. deep structure which is concerned with meanings that may be conveyed through utilizing such language elements as syntax, semantics, stress, pitch, juncture, and transformational grammar.

The linguists would have the elements of these two levels taught, with the goal of completing them, at sequential times in school grades. They believe that attention to the two levels of surface structure and deep structure should be given at the same time in successive school grades but with emphasis on surface structure in early grades and with increasing emphasis on deep structure in later grades.

Most linguists are opposed to phonics for learning phoneme recognition. They approve having children first learn words by sight in reading experience charts. Later, they would teach them to recognize unfamiliar morphemes through the use of their meanings in sentences, paragraphs, or an entire selection. Many teachers, however, complain that they receive children who have little or no background in English, hence these children are unable to supply meanings from content, and are aided by learning to use phonics.

Since 1965 a large volume of research on linguistics related to reading has issued forth, and this is valuable reading for teachers.
One topic of linguistic investigation which is attracting much attention in reading is "Miscues."

The principal investigators on Miscues are Kenneth S. Goodman (12, 13, 14, 15) and Yetta M. Goodman (17, 18).

An exceedingly large number of conclusions have been drawn as results of this study. From these conclusions a few will be quoted briefly: "Readers who are proficient tend to produce fewer miscues;" "All subjects at all grade levels produce syntactically and semantically acceptable miscues though their abilities to do so varies." "In this research there is little evidence to support the idea that 'phonics' problems are of any great importance in differentiating readers of varied proficiency;" "Readers rely more heavily upon the graphic system than the phonemic one." "The most frequent of all degrees of change are those miscues involving only a slight change in connotation or a similar name." "Insertions, or omissions may be of three types: single morpheme words, multiple morpheme words and words in compound words." "Single morpheme words are omitted most frequently." "There is considerable less activity at the clause level than at the phrase level." "Allogs, which are alternate forms of the same item as the contraction isn't for is not or plane for airplane, were not a frequent phenomenon in any reader."

In summing up this discussion of miscues it may be said that the door has been opened in regard to knowledge of miscues in reading. We have some research concerning their frequency and nature and have been shown some ways in which they can be diagnosed.
and dealt with in the classroom situation. We can now realize that the end point of miscue work in reading is not diagnosis alone but rather that of doing something about removing the causes of miscues through instructional techniques.

We need more suggestions concerning practical classroom procedures for aiding children to overcome the use of miscues. We particularly need research to indicate the effect of using miscues on reading competency and the effect of different miscue procedures to use for reading improvement.

As for the future of linguistics in general in its relationship to reading, there is no doubt that we shall make increasing use of this science as the years pass by. We need continuously to keep ourselves informed concerning new developments in this area. Immediately we should become familiar with linguistic terms especially applicable to reading such as phoneme, grapheme, morpheme, stress, pitch, juncture, syntactic competence, "kernal" of a sentence. These are words you will meet frequently in future discussions of linguistics and reading.

INCREASED ATTENTION TO CHILD DEVELOPMENT

Specialists tell us that the early years are the most important ones in developing a child's health and intellect. Never before has so much attention been directed to child development. This is one of the strongest trends at the present time. It is this trend that probably is largely responsible for the on-going controversy about teaching young children to read.

We all know of some young child who picked up the reading
skill pretty much by himself or herself before coming to school. Perhaps you read the amusing account of one such child in the Pulitzer prize winning novel TO KILL A MOCKING BIRD, in which the author amusingly portrays the experiences of a pre-school reader. If so, you will remember that Jem said of his four-and-a-half-year-old sister, "... Scout there's been readin' since she was born, and she ain't even been to school yet." Then upon entrance in first grade, Scout, whose real name was Jean Louise, was asked to read something that Miss Caroline wrote on the chalkboard and she read it so well that Miss Caroline was visibly vexed. Miss Caroline then had her read most of the first reader and other readers and finally she asked her to read the stock market quotations in the Mobile Register. Jean Louise read beautifully in all of these situations. All of this time Miss Caroline's irritation was building up and she finally exploded. "Tell your father to stop teaching you. It will interfere with your learning to read in school." Jean Louise said that her father didn't teach her, and then she began soliloquizing to herself on how she did learn to read and she finally decided that it just came like learning to fasten the flap on the back of her union suit without looking around.

First grade teachers today who receive such a child would be amazed but not irritated. A child who had reached a level of reading proficiency such as Jean Louise possessed would pose a problem when placed in a class of beginning readers. It is hoped, however, that the teacher would make adjustments by providing such a child
with reading materials appropriate for his or her level, rather than transferring this child to a higher grade where the more advanced age of the other children might have bad effects on social development.

Due to the trend to place more emphasis on growth in early childhood much pressure is felt at present in regard to teaching reading to pre-school children and to kindergarten children. This is a highly controversial issue. Proponents state that children will have an academic advantage if they learn to read before first grade and quote research showing that young children can be taught to read. Specialists in early childhood education point to research showing that the majority of children are not ready to read during pre-school years, and that while some can be taught to read they are no better off in the long run than as if their reading instruction had been delayed.

Probably the answer to the controversy is neither "Yes" or "No." Some children with high mental and physical maturation, living in favored home environments may want to read and ask for help during pre-first grade years. If so, these children should not be deprived of the assistance that they seek. On the other hand there are other children who do not reach maturity for reading instruction until seven years of age or later. We cannot state any particular chronological or mental age at which all children should be taught to read. This is a matter of individual qualifications.

One emerging influence pointing toward increased readiness for
reading is the large number of Nursery schools that are being established throughout the country in private and in public schools. In these Nursery schools children develop a better foundation in language. They have contacts with books as the teacher reads to them, and as they are encouraged to look at children's picture books. Many of them will begin to "read" the pictures. In these contacts they will enjoy books and learn their function, important acquisitions for beginning reading.

THE TECHNOLOGICAL REVOLUTION

Now to discuss the most spectacular trend of all—that of using technological media in teaching reading. This trend is an outgrowth of the worldwide technological revolution. Technology has changed the patterns of progress in all major strands of civilization. In many ways it is changing patterns of progress in reading instruction.

The Computer

Perhaps the most startling technological instrument used in teaching reading is the computer.

In 1966 exciting news came from the Brentwood Elementary School in Palo Alto, California. First grade children there were being taught to read with the use of a computer. Thus the computer made its entrance into reading instruction. The Stanford project continues on with many improvements (1).

One sample of the different procedures used in computerized teaching of reading is given below.

The master computer that does the teaching has eighteen
terminals. As the children come to the classroom, each one sits down before a screen at the end of his terminal. Various pictures, letters or words begin to dance on this screen in front of him. Soon he is asked by the computer to make a response. This he does with a light-projecting pen. If the response is correct, the computer says "Good!" If it is wrong, the computer says "Noooo." If there is a hesitation of more than 5 to 10 seconds, the computer says decisively, "Do it now!" If the child still sits and does nothing at all, the computer taps out a distress signal calling the teacher.

Computerized teaching has been conducted for some time in a project at the University of Minnesota.

Their arrangements for teaching reading is as follows:

The child is instructed to push a button which rests comfortably in his hands. For example, if the word he sees on the screen is the same as the word he hears (bat-pat) he is to push the button. If not, he is instructed not to push the button. For every correct response a green light appears and for every wrong response a red light appears (34).

It was in the 70's that we began for the first time to hear about large scale computer experiments, for example, at the 1972 IRA Convention, John Grate (19), described how developmental and remedial reading was taught to elementary and high school students by CAI in Cincinnati, and Richard Smith (38) told how reading was taught by CAI to elementary and secondary students in interurban communities in Pennsylvania.
Reports of many, many smaller CAI projects are coming in, and what is interesting about these is that they are dealing with different types of children, in many different situations, and often under different time-sharing arrangements.

The chief reason why more schools do not have more computers is because of their cost. There is promise, however, of cost reduction. Minicomputers which are now being manufactured offer some possibilities in reduced cost.

Economists who plan computer prices in terms of estimated markets of the future predict that in terms of the increased market by 1980 we might have a computer for five thousand dollars which today costs one to two million dollars.

Time-sharing has great promise for economy. Time-sharing systems capable of supporting several hundred simultaneous users with one computer are predicted for use within five or six years.

The future role of the teacher who has use of a computer is both challenging and promising. She can hand over to the computer much of her drill work in reading and use the extra time in doing constructive and creative teaching. Some of the investigators have experimented to see if a computer can do all of the job in teaching reading. They have found that it doesn't work. They still have to have a teacher. Computers should continue to serve the purpose for which the much used abbreviation CAI stands for "Computer assisted instruction."

In my opinion we shall also always need reading materials to teach reading. Children should have instruction in reading
printed material which is the natural reading media used in life. I believe that neither reading teachers nor reading materials are going to disappear. We shall need both in the years ahead.

Television

In the 1970's television made a dramatic entrance as a medium for teaching reading with the nationwide readiness program **Sesame Street**, later followed by **The Electric Company** for seven-to-ten-year-olds, and in 1974 another TV reading program will be produced by the same company. Other TV projects for teaching reading have been developed. For example, the project conducted by E. B. Coleman (8) in the Appalachia Educational Laboratory in which reading was successfully taught to 450 children, three to six years of age, by means of animated cartoons shown on closed circuit TV. Caleb Gattegno (11) conducted an experimental commercial program called **Pop-Up** designed to teach reading, and consisting of one-minute exposures of phonics, words, and sentences. These are a few outstanding examples of the use of TV in teaching reading in the 70's.

TV, and records are used increasingly in teacher training and for conferences.

In evaluating television instruction we can do no better than to quote from Savage (35).

"The direct role of movies in developing decoding and basic reading skills is rather limited. Some instructional films on basic skills are available (such as the Harvard series), but these are usually not designed for use in the elementary classroom. Some
may be used as introductory lessons, but they do not give the intensive coverage needed at this level. Movies can, however, enrich children's vocabularies and provide motivation and background for reading.

"Nor does television give teachers much help in developing basic reading skills. Because of the variety of approaches used to teach reading, television programming is largely limited to the content rather than the skills aspects of reading. With the new emphasis on decoding and phonics in reading programs, however, we can expect TV to provide some help in this area soon, along with the motivation and background function it now provides" (35).

Cable television is looked upon as a medium which will introduce a new era in electronic education, and its possibilities in reading instruction are great, indeed (36).

A coaxial cable is a "magic wire" about the thickness of a fountain pen, used for transporting signals that make up television's pictures. By binding together many of these coaxial cables in one broad band it is entirely practical to deliver 20 channels into a school or home at present, with expectation of forty as being common shortly, and it is thought that channels could run into the hundreds in the future.

With cable television in a school teachers wouldn't have to choose one program that comes on at a fixed time. They could have multiple program choices and have any particular program at any time it is wanted. It would be possible to have several different TV programs going on at the same time in different classrooms,
have these programs at different times in the day, and repeat them with different groups. The possibilities for instructional programs in the school are unlimited.

Because two-way communication is possible with this facility topics can be opened up for discussion, in classroom instruction, between teachers and other teachers, between teachers and groups in the community college courses, in-service courses, reading conferences, can be given by CATV.

It is possible to use a dial telephone, a computer and a CATV screen in giving a series of lessons in the home. The child dials his phone, pushes two small buttons on top of his TV set and then studies by communicating with a central computer which flashes information on the TV screen. This technique of the future is already being employed in about 2000 homes in Reston, Virginia, where it was used to give practice in elementary mathematics. It might as well be used to give practice on some of the reading skills.

Satellites

Satellites. In 1971 eight satellites were ordered by United States with a capacity of more than 5,000 telephone circuits plus one for color television. Others have been purchased later and now a massive experiment is being planned under a $500,000 grant made by the Office of Education (32). This is called "The Rocky Mountain Region Experiment." It will embrace an immense area including seven western states, Alaska and Appalachia where its planners hope to reach Indians, Chicanos, Blacks, Eskimos,
aliens, as well as other diverse groups, and of course Anglos. The project begins this spring, will cover the rest of 1974 and some of 1975. It will deal especially with young children and careers although some states, Alaska for instance, will include reading.

Television will be the main medium used in dispersing the information by satellite. It will, however, be coordinated with radio, computer and written materials. Additional support will be given by "on-site" personnel such as the site coordinators.

There is little doubt that this experiment will give us insights into the practical uses of satellites in distributing educational assistance over wide areas in the United States. Perhaps its most significant result will be its catalytic effect in stimulating similar experiments in the future to improve other aspects of education, including especially reading.

Insofar as communications in general are concerned in homes, schools and other institutions, it is predicted by some that satellites will eventually replace the television system as we now know it.

Many less spectacular media are now commonly used in classrooms: recorders, projectors, slides, transparencies, language master and all sorts of automatic pop-up devices. You have only to visit publisher's exhibits at any IRA Convention to see a marvelous array of new technological devices for teaching reading, as well as plenty of software material for as previously indicated we still need software and there are many innovations in this area, too.
I would like to say this in concluding my discussion of present needs and future trends in reading: The present is obvious and it points toward the future, but specifics of the future are unpredictable. The best that we as reading teachers can do is to keep ourselves in a continuous state of adjustability to change.

In this connection I like to think of a quotation from Don Fabun:

"Out of the dreaming past, with its legends of steaming seas and gleaming glaciers, mountains that moved and suns that glared, emerges this creature, man—the latest phase in a continuing process that stretches back to the beginning of life. His is the heritage of all that has lived; he still carries the vestiges of snout and fangs and claws of species long since vanished; he is the ancestor of all that is yet to come.

Do not regard him lightly—he is you."

Because he is you. I'm sure you will meet "all that is yet to come" with promptness and efficiency.

While the future ahead is startling, sometimes almost frightening, it is also fascinating and challenging. We may occasionally have worries and set-backs. In the midst of these we shall also have successes and deep abiding satisfactions.
But we do have a long way to go. At the moment I think of no better way to conclude this talk than to quote from Robert Frost;

To our youth we have a promise to keep,
And many miles to travel before we sleep,
And many miles to travel before we sleep.
REFERENCES


42. Ul'Ren, Marjorie, Ibid., 31, p. 60.