The question of whether children should be taught to read before first grade has long been discussed, but never settled. As the educational level of the people and the demands of industry increase, the rate of functional illiteracy also rises, provoking criticism of school programs and creating a need to find new ways of dealing with the problems. A search of the literature related to early and beginning reading reveals that children vary in their degrees of readiness for reading and that readiness experiences now provided do not provide for the needs of many children. That some children, at least, are ready to read before age 6 can be seen in the success of Head Start and Sesame Street and in the results of research on early reading. If the needs of children are to be met, it will be necessary to provide instructional opportunities for younger children and to find ways of determining individual children's readiness levels and of using these levels to design instruction for them. The real question in early reading is one of how to include such provisions in an instructional program. References are included. (NS)
EARLY READING -- HOW NOT WHEN!

Speaker I, 10:30 a.m., Friday, April 23, 1971

The saga of early childhood reading is somewhat reminiscent of the radio soap opera of yesteryear; the characters live on and on, the progress is almost predictable, and should one neglect to listen for a month or a year, not too much in the plot has been missed.

In our continuing story, the program producers continue to use the theories and guidelines of Bloom, Bruner, Deutsch, Fowler, Hebb, Hunt, Piaget, and others. The success and potential of early childhood reading has been reported again and again. Research evidence regarding adverse effects of early reading instruction is lacking and almost non-existent although reading research and instruction have been the topics of over twenty-five thousand articles and

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publications. Many of the shibboleths existing ten years ago have been discredited. Yet the same tired voices continue to warn against early reading instruction. However, the story is changing. Professional and public recognition of the values of early intervention are having an influence. The federally supported Education Acts of 1965 accelerated innovation; Head Start, and more recently, Sesame Street, have dramatically highlighted the plot of our continuing story. Still in many communities both effective early childhood education and more specifically early reading instruction are strongly theoretical and exist mainly within limited special programs, thus serving the few rather than providing such educational opportunities to the majority of young children.

The inadequacy of research applied to improving reading instruction has been evidenced by the now well disseminate: "Right to Read - Target for the 70s" espoused by James Allen, former United States Commissioner of Education. The writings of Chall, Durkin, Cohen, Robinson, Smith, among others, and the current United States Office of Education, "Targeted Program in Reading," are indicants that the basic quest remains unfulfilled -- namely, that every child will attain reading competence to meet both his individual needs and those of an urban, technical, industrialized culture within a democratic and humanized matrix. It seems a reasonable goal, yet the complexity of it is indicated by David Dempsey who noted in a recent article in the Saturday Review, "Paradoxically, as the educational level of the country has risen, so has
the rate of functional illiteracy. For this, one logically blames the schools; yet, the problem is not so simple. As American industry makes increasingly sophisticated demands upon even its lowest paid workers, standards of "literacy" rise, too."

**Historical Perspective**

The documentation of the need to read has been evident for over seven thousand years. Ever since man first began to record his ideas in writing, this need has been persistent and its fulfillment has been of high priority. The elite, those who could read at the Court of Hammurabi, the scribes of ancient Egypt, the scholars of Oriental lands, and elsewhere, all possessed the rare and valuable skills for reading.

Our society formalized reading instruction requirements when in 1642 the General Court of Massachusetts declared that parents and masters were responsible for the development of reading skills among their children. The Court further required that respect for laws and religion would be taught all children. From this meager beginning, we have, through a system of mass education operating with significant resource limitations, a national illiteracy rate of less than two percent. Admittedly, one of four pupils nationwide has significant reading difficulties and fifty percent of the pupils achieve below the mean, but in a sense these are the persistent characteristics of statistical interpretations as related to normative classifications of data. Similar statistical data would apply to most of the taught skills.
Viewed from the perspective of history, reading ability, the skill of the elite, has become a common skill possessed to a degree by over ninety eight percent of our citizenry. Complacency about the seriousness of the reading problem is not permissible, for as Walter Straley of the National Reading Council noted, "As many as 18.5 million Americans, or thirteen percent of the population sixteen years and older, lack the reading ability necessary for survival in the United States today." The answer to the problem lies somewhere between what has already been done, what is currently being recognized as effective early reading instruction, and a synthesis of these elements into a functional implementation process.

During the 1960s, we have witnessed a technological revolution, but as yet we have failed to use this technology to implement on a massive scale the techniques with proven validity. The restricted size of our research samples and the lack of significant home-parent involvement, have predetermined ineffectiveness or at best only partial success.

If educational research in early childhood education is to have a major impact, it must include the added dimension of the home. Thus, we recognize a multi-pronged thrust: the home fulfilling a preventive role, the school providing identification and programs for recognized, modifiable deficiencies, and research which evaluates processes and procedures. In order to attain these ends, we must clearly define the nature of the variations among children and the processes by which the learning of reading takes place.
Today, the desirability of early childhood education in reading is well documented. Researchers suggest that we must reorder our educational priorities; we must give additional emphasis to early childhood education. The dividend potential of early pre-school education has been reiterated by numerous investigators, Fowler (9), Cicarelli, Evans and Schiller (3), Weikart, along with Deutsch (5), Bloom, Davis and Hess, along with Gray and Clous (2), have focused attention on the effects of cultural deprivation and potential approaches to remediating its consequences.

The Learner

Bloom (1) has observed that from the time of conception until age eight, eighty percent of intelligence is developed and there remains little doubt that this development is, in part, a function of the environment in which the individual operates. This is a time of plasticity when the impact of instruction may have its greatest influence. The years four to eight then would be crucial in the development of the cognitive skills of reading.

A factor having great impact in support of early reading instruction is Bloom's hypothesis (1), "Variations in the environment have greatest quantitative effect on a characteristic at its most rapid period of change and least effect on a characteristic during the least rapid period of change." In a similar view, Hunt has suggested there is a need to pay more attention to the early years, and particularly so if
there is evidence of cultural deprivation. He also stresses the importance of the "match." This is the junction between the external stimuli and the inner integrative pattern of the individual. The important factors being that experienced deprivation or ineffective or inappropriate instruction can be harmful to students at any age.

Hebb, along with others, has indicated that early experience is crucial for proper development of problem-solving and interest in the environment. There seems to be an intrinsic pleasure or self-reward in gaining confidence that feeds upon itself and which leads to further development. Primary learning in humans is a perceptual experience; man is dependent upon visual and visual-motor processing for adequate development. To deprive the infant or child of visual, motor, and kinesthetic experiences, contributes to perceptual dysfunctioning. Behavioral changes can be achieved much easier at an early age. The adaptive, useful behaviors are established very early in the child's life. The maladaptive behaviors are just as easily acquired. We can no longer afford the luxury of investigating whether the child can be taught at an early age; the research evidence is rather conclusive in this regard. The child is not waiting; he is learning, be it in a positive or negative direction. The questions remaining are: What to teach him? and How to teach him.

Reading Skill and the Preschool Child

The readiness doctrine which imposes an age six chronological barrier to formal learning, sentences many children to failure, and ignores
the learning ability of others. The literature on gifted children has often reported that children have mastered the alphabet during their second year and have begun reading text as early as their third year. As has been widely reported, Omar K. Moore has succeeded, with the aid of the responsive environment typewriter, to teach children as young as three years of age to read. Fowler (9) reports substantial headway in teaching well over eighty four-year-olds and fifteen three-year olds to read fluently. Indications are that success in early reading is rather consistently found to be at a minimal mental age criterion of about four years. Israel, because of national demands, has organized free nursery schools to help solve the problem of Oriental immigrants and four-year-old children are introduced to reading. The Soviet Union, in selected schools, Scotland, and the Montesorri Schools of Europe, have for a long time taught children to read between the ages of four and six.

Dolores Durkin (7), working in Oakland, California, found that almost one percent of entering first grade pupils scored between 1.5 and 4.5 on a grade level norm scale in reading. In forty New York schools, she found one hundred fifty seven pupils, or almost four percent, entered first grade as readers.

The Exemplary Center for Reading Instruction (ECRI) in Utah reports that results indicate that preschool reading instruction is effective and that those who entered the program at age three are doing the best.
S. Allan Cohen (4), as a result of his work with disadvantaged children, has concluded that we must discard the old shibboleth that reading instruction in preschool is injurious to children.

The initiation of Head Start and other programs to equalize educational opportunities demand the intervention and stimulation of early childhood education to prepare the child to benefit from school -- which incidentally, is a reading environment.

Television, and specifically Sesame Street, reaches six million, or about one-half, of the three-to-five year old population and the research indicates that those who watch regularly do learn letters, numbers, and object-matching skills. More important perhaps, are the overt reading-related behaviors exhibited by toddlers in their living-rooms; behavior they will bring to school.

Reading skills can be learned by the child prior to his customary entrance in school. Two benchmark studies, The Denver Studies (15), demonstrated that a large urban public school system could significantly upgrade reading achievement. One study provided reading instruction to large numbers of typical kindergarten pupils; the other study utilized the medium of television to assist parents in preparing their preschool children for learning. This television study has been replicated by Schoephoerster (20) as well as by McManus (16), both of whom reaffirmed the value of parents preparing
their young children for reading. In a corollary-type study, Dunn (6), demonstrated that children, two to four years of age, can be effectively taught reading skills by use of the television medium.

Essentially, the Denver television study utilized a series of sixteen television lessons and accompanying guidebooks to assist preschool children, with parental guidance, to acquire basic skills of beginning reading. Participants had a minimum chronological age of at least four and one-half years (54 months).

Results revealed that statistically significant gains in achievement were made by those children who practiced thirty minutes or more per week. The amount a child learned depended directly on the length of time someone practiced the beginning reading activities with him. The favorable findings related to "Sesame Street" were of no surprise to the educators in Denver.

The Denver kindergarten study found that beginning reading skills can be taught quite effectively to typical kindergarten pupils; large numbers of pupils were involved within a conventional kindergarten structure. Follow-up studies indicated that the permanence of gains made, as a result of being taught beginning reading in kindergarten, depended upon subsequent instruction. Head Start administrators also have come to recognize the validity of this fact. We now have various follow-through programs to capitalize upon and to sustain the gains of
early childhood education made as a result of Head Start. Reading comprehension and reading vocabulary results were high among the experimental groups in Denver, these groups were also comprised of faster readers. Subsequent analysis established that earlier reading influenced achievement in other areas where success depended upon reading proficiency. The experimental instruction, both during kindergarten and in the later grades, proved to be more effective than the regular reading program used previously. The early reading program presented no blocks, physical or emotional, to later reading.

Learning to read is very similar to mastering speech; if the child is capable of acquiring a differential speech response to ordinary stimuli in a normal manner, then the same thing is true of reading. Thus, learning to see words is closely parallel to learning to hear words. The difficulties we experience in teaching reading may well stem primarily from the method of exposure and the quality of instruction rather than the maturational level or limitation in the child as a learner.

A questionnaire survey conducted by Zaruba (23) found that most kindergarten and primary teachers have positive attitudes toward reading instruction in kindergarten. Noteworthy is the fact that primary teachers attributed greater importance than kindergarten teachers to the more formal reading skills and to parent involvement. A two-state
survey by LaConte (13) concluded that reading instruction in kindergarten is here to stay. Reported resistance to such teaching apparently was correlated to length of teaching experience. However, teachers in large cities were more strongly in favor of early reading instruction than those in other areas.

Results from the Comparative Reading Approach First Grade Teaching (CRAFT) (18) indicated that the type of experience provided Negro disadvantaged children in the New York Public School kindergarten appeared to be beneficial for only those who had subsequent reading instruction in a language experience program. Largest gains were made in grade three, indicating delayed effects for this approach. Langston (14), Karens (11), Kelley and Chen (12), and Sutton (22), among others, have all found significantly higher achievement among experimental groups who received early instruction in comparison with control groups.

The kindergarten and early childhood program should be more than permissive play. The play experiences designed to promote personal and social development should be accompanied by content and structured activities to improve the intellectual climate during this crucial time of a child's life.

The increased cultural advantages of our relatively affluent society, improved materials for instruction, and recognized changes which have
occurred in the environment of children suggest that youngsters may develop an aptitude for reading at an earlier age than previously has been the case.

The Role of the Home

Within the home, very young children deal easily with the big ideas of their environment and, as a result, have speaking vocabularies that are probably close to five thousand words with listening vocabularies twice the size of their speaking vocabularies. They ask big questions and expect correct and detailed answers.

These pre-primary children are surrounded with reading materials of many types, used for varied purposes by all members of their families; at an early age they know the importance of such materials. These youngsters read familiar street signs, assist in warning the driver of the family car of traffic signs, and help mothers hunt the attractively packaged and familiar products in stores and supermarkets. They note the eye-catching printed materials that arrive through the mail, and are subtly influenced by television commercials. The Gallup Studies of Early Childhood Learning (8), through interviews with mothers, established support for early reading instruction. In addition, it was found that most of the top first grade pupils were read to regularly before they entered first grade, that adult models who read and were interested in reading were important, and an abundance of books and
magazines were generally available to the child. Reading to a child as early as the age of one gives him a statistically significant head start.

As cited earlier, the influence of Head Start and compensatory programs, and the appeal of American Montessori schools to the affluent, are indicants for parental support. A cursory examination of popular magazines and the claims of those who sell educational materials for home consumption often include an emphasis related to early reading instruction. It is not uncommon to find children entering school who already have developed reading skills. As Dolores Durkin has documented, such an advantage persists.

Mason (17) surveyed a racially, socio-economic, and intellectually stratified sample of preschoolers and found that ninety four percent of them would like to learn to read. Motivation is there, both parental and for the child. Over the last fifty years, reading specialists and researchers have coined and adopted new terms, but as Helen Robinson (19) stated, we have so many terms and phrases we find it difficult to talk to one another without semantic differences intruding. The problem is magnified ten-fold for the classroom teacher who does not have the benefit of our experience.

Speaking of our experience, what do we really know? What does research show? What do we really understand about the reading process?
Research to date has not been definitive; much of it has been too fragmented to be of real value even though as noted by Samuel Weintraub, "In the past three years alone, well over 1,100 published reports and summaries of research have been identified and abstracted in the annual summary of reading research. Of the topics covered by these reports, more research was reported on beginning reading than in any other area. How children learn to read has been a topic of high interest to reading researchers since the very beginnings of published research. The intense research focus on this aspect of reading may be due in part to the importance and drama attached to learning to read." A comprehensive approach such as the Targeted Research and Development proposed by the United States Office of Education as a longitudinal project may serve as a reading research guide for the 1970s. This project or others similarly comprehensive can focus upon the convergence technique in reading research. Blending elements from system-program analysis, philosophy of education, learning theory, and group dynamics, hopefully providing a comprehensive approach and test every aspect of the selected model. The project -- if successful -- could provide:

- research of existing approaches and concepts of reading instruction
- theoretical researching of reading itself
- exploration and the manipulation of instructional sequences
- refinement of materials
- adjustment of other instructional variables.
From this a prototype instructional reading system usable within public school classrooms may emerge. Within the decade this approach may answer many of the basic questions about reading. However, this is basically a research approach and the prime responsibility for reading programs will remain at the local level and will be dependent upon local programs and resources. With this wealth of research, the teachers are often inundated by the sheer amount of information. Critical analysis and compilation of the truly significant and more important research data is required. Perhaps it is time to spend an equal amount of effort in organizing such efforts if research findings are to receive broader application. In this day when research papers, periodicals, books, and similar materials are produced more rapidly than any one person can read, what is needed is an information dissemination system; a means of closing the gap between what the researchers know and providing the information to teachers but in a useable, understandable form. There are some generalizations pertaining to learning theory which are worthy of quick summation. Reviewing the many articles, research, and publications pertaining to early reading instruction which have been reported over the past decade reveals a general theme that becomes readily apparent. The bits and parts fit together comprising a generalized pattern. This pattern posits the need to match early childhood educational procedures so as to govern the encounters to foster both an optimally rapid rate of intellectual development and a satisfying life. (9)
Readiness is more than the result of maturation or the combination of the abilities most reading readiness tests seek to assess. As typically conceived at present, readiness is a two-edge sword which commits many to failure while at the same time insults the capabilities of others. Rather, reading readiness should be viewed as a synergistic result of maturation facilitated by instruction and enhanced through training of visual discrimination abilities. Recent researchers have established that letters, words, and three-dimensional objects are superior to geometrical abstractions and two-dimensional objects in the assessment of measured readiness. The question of readiness is being viewed as a propaedeutic function, namely, that when a child learns to read, he does so a step at a time. The vital requirement being that he is ready to learn the first step which also prepares him to be ready for the second step. We need to view reading readiness as a set of abilities which makes one child ready for one kind of instruction; another child may be better matched with another kind of instruction. (6)

The objective then becomes to generate adaptive, useful behavior among children during their life span when they are most susceptible to change. This will require that reading instruction during these early years take into account the developmental level of each child as an individual for if the proper "match" of which McVicker Hunt (10)
speaks, if there is success built in for the child, and if the climate of a positive self-fulfilling hypothesis is advanced, the positive impact of instruction which may exist will likely be enhanced.

Some have claimed that childhood is being truncated, that our modern, urbanized, congested society does not permit children to be children and that the imposition of a structured program, such as reading instruction, will impinge upon the teacher being able to provide a warmth of motherly-type love. As Fowler, Moore, and others have found, children often respond to structured reading instruction with no apparent loss of childhood experiences. In fact, the case can be made that by being able to better interact with the symbols of their environment, their age span of childhood is enhanced as Weintraub has stated, "In all the areas looked at, research has scarcely scratched the surface of what can and must be done. For the researcher, the challenge is there; for the practitioner, it promises new insights, better answers, and worthwhile applications."

In summary, our task in the 1970s is to bring together what is known about early childhood education and, more specifically, reading. We must conclude the soap opera antics and embark upon a revitalized format based on the "how" and "what" of reading. Let us acknowledge the demise of the "when factor" and relinquish the security of
research reruns which add very little to the understanding of reading instruction. Let us also embark upon an implementation and dissem-
ination campaign. Our purpose is clear; our blueprint for success is emerging. To paraphrase a television commercial, "We've come a long way baby, to get where we are today," but, realistically, I must add - we still have a long way to go.


13. LaConte, Christine, "Reading in the Kindergarten, Fact or Fantasy?" Elementary English, 47:382-87, March 1970.


