**ABSTRACT**

During the spring of 1971, a study was made of early reading responses of four, five, and six year olds in a Finnish preschool in order to discover clues to the onset of reading when beginning reading instruction focuses on a phonetic approach and when the language (Finnish) has a highly phonetic regularity. Sixty-two children were tested, interviewed, and observed. Each child was shown a photograph of a word in its natural setting and was asked what it said. The same question was repeated using a drawing representing the photograph, then the printed word symbol in a simple context, and finally the printed word symbol in isolation. Words used in sentences tested the child's recognition of words in total context. Results led to the conclusions that learning to read is as natural as learning to talk and that reading is a natural outgrowth of language development and is not entirely dependent upon the phonetic property of the printed symbol. (JM)

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Discussion of Results of a Study of Early Reading Responses of Young Children in the Finnish Lastentarha

Introduction

Some insights into the learning to read process are readily available in children's responses to print in their natural, everyday environment. Clues to children's understanding of language and the strategies they use as they learn to read can be used by teachers in their decisions about reading instruction. (22) This report is a discussion of the results of an investigation of early reading responses of young children in the Finnish Lastentarha.

The results of the study in Finland do not support the emphasis on a phonic approach to beginning reading instruction, nor the importance of a highly regular orthography in the process of learning to read. The results challenge the belief that grapheme-phoneme regularity is a critical factor in the onset of reading.

To question the validity of a phonic approach to beginning reading is to commit educational heresy: To draw implications for teaching from observational data is condemned as non-intellectual, non-scientific inspirational dreaming. In the absence of a rigorous "controlled" experiment this study does not contribute to a model of how children learn to read. On the other hand, the absence of highly stringent controls does allow for spontaneous reactions and responses by the child to the "test" situations designed for collecting data on the onset of reading.

During the spring of 1971 the writer made a study of early reading responses of four, five and six year olds in the Finnish Lastentarha (preschool).
The study in Finland sought clues to the onset of reading when beginning reading instruction focuses on a phonetic approach (tavaaminen), and when the language, such as Finnish, has a highly phonetic regularity. The 1957 investigation of early reading responses of young children tested the theory that children begin the reading process naturally in a print environment by discovering for themselves that printed words are substitutes for audible symbols used to identify objects, actions and situations. The conclusions support the thesis that a young child proceeds through the process of learning to read as naturally as he learns to talk and understand language, and as personally and creatively as his curiosity and exploratory behavior present possibilities. Reading, then, is a natural outgrowth of language development and is not entirely dependent on the phonetic property of the printed symbol.

Reading Instruction in Finland

It is assumed by some that the high literacy rate in Finland is due to the phonetic regularity of the language. Reading is not taught formally in the Lastentarha and children are not exposed to formal reading until the age of seven. The Esikoulu concept, advocated by a 1970 Committee of the Valtioneuvosto (government) will advance formal reading instruction to age six. (2) Reports from Finland indicate that budget problems and other unresolved considerations have kept the Esikoulu legislation from being implemented except in a pilot form.

Teachers teach reading formally to seven year olds as if they were illiterate (12) Reading as it is taught is not treated as a language component. Children first learn letters from a primer and combine them to make short words. In Aikaarme Aapinen (11), for example, a child begins by learning A a, I i, AI ai, Oi oi, Mm. Then the word MAA (earth) is learned; then TATTI (toadstool); then a sentence OTA OMA TATTI (take your own toadstool). The text increases in difficulty to the fourth or fifth reader level.
The order of presentation of letters varies among publishers. Manuals resemble our American basal reader manuals and most teachers adhere strictly to the suggestions in the manual. Children are taught to put sounds to the letters so beginning reading instruction is mainly oral reading. A typical manual for a basal reader stresses talking, listening, singing, arts and crafts, music, fields trips and all manner of creative activities. In reading instruction sounding is a separate function. The Esikoulu Kokeiluopetus - suunitelma (24) of 1972 states that a young child's cognitive growth or knowledge of the world around him is not aided by sounding out a word if he doesn't know what the word means. Thus, the Esikoulu curriculum stresses the growth and development activities characteristic of all good preschools and does not emphasize the importance of phonics.

The study by the writer sought clues to the child's perceptions of the reading act. More specifically, the study attempted to test the belief that the onset of reading is not dependent on phonics instruction, whether in the Finnish language or any other language. The writer's investigation followed the format of a previous study (23) which used photographs of printed word symbols in the everyday world of a child. Sixty two children were tested, interviewed and observed. Each child was shown a photograph of a word in its natural setting and was asked, "What does this word say?" Then a drawing or representation of the photograph was used because reading texts usually use drawings. The printed word symbol was then shown in its immediate setting using less associated context than in the photograph. A fourth step, the printed word symbol in isolation, tested recognition of the word after a child abstracts it from its setting. Words used in sentences tested the child's recognition of words in total context.
The twenty five words are: POSTI - Post Office; PANKKI - bank; MYNTTI - sale; OSTO - buying; LIPPSA - soft drink; Pepsi Cola; Coca Cola; Kodak; AVOINNA - open; LELUJA - toys; PAPERIA - paper; TARJOUS - offering or sale; MAARI - coffee shop; OULULAIHEN - trade name for bread; MUSTAHERUKKA - black berry juice; Apteekki - drugstore; ARKISIN - week days; LAUANTAI - Saturday; K - store, JUO - drink; VALINTA - supermarket; ILOISTA PAPSIAISTA - Happy Easter; OLUT - beer; JAATELO - ice cream; TALVIKUVAT - winter scene.

No quantification of data was made in the Finnish study. Fifty-three of the sixty-two subjects knew all or some of the printed words in the photographs. Forty subjects knew all the words, nine did not know any of the words. Twenty-three knew some of the words in isolation. None of the children knew all the words in isolation. No record was made of the socio-economic status of the subjects, the intelligence quotient or the sibling relationship in the family. It was obvious that more older children (six year olds) knew more words than either five or four years olds. One four year old knew all the words in the photographs and some in isolation.

Verbatim Report

A complete verbatim report of the children's responses is too extensive to be included in this writing. Clues to a child's discovery of the reading process can be drawn from the responses to the question, "What does this word say?" Reports of the children's spontaneous remarks about their reading give clues to the cognitive processes that underlie learning and clues to answers to some questions about phonic instruction in reading.

The children's responses are part of the fabric of questions teachers ask. What happens when the emphasis is only on spelling - sound relationships? Do children see the relationship between what they do when they sound out words (tavaa) and what they do when they read? Is pronounceability of words helpful for children learning to read?
Is it effective because the subject "says it to himself" and it sounds right? Deaf subjects in Gibson's, Shurcliff's and Yonas' (3) research differentiated nonsense words by orthographic structure alone. Would meaningful words make a difference? Does the child have to identify the word before he decides how to pronounce it? (7)

"I know that's PANKKI because I see the P (pointing to the upper circle of P)." When I'm in the bank I see PANKKI. The following is a spontaneous comment, "When I'm in the Post Office I see POSTI." The word POSTI had not been shown to the child at this point.

Is the circle in P a significant graphic cue to word recognition for this child? "Pre-reading children apparently have little difficulty in dealing with letters as stimuli (note recognition of P) but a great deal of difficulty with letter sounds as responses." (13) The child's use of prior experience and knowledge of where the word is usually seen, ("in the bank I see PANKKI") is evident. Did the child use the contour of the word? Gibson (6) writes, "Not only is differentiation poor without internal analysis, but without such analysis there would be no basis for transfer to new words." Gibson (5) contends that children develop sensitivity to differences in print by being exposed to plenty of word-like forms. Children who invent spelling systems of their own use letters for sounds and draw alphabetic rules and succeed on their own in phonemic abstraction.

Concreteness (words with physical referents) or abstractness of words seemed to effect meaning and word recognition. Children define concreteness through function, category, description and place relationship. A frequency and familiarity dimension effects the concreteness variable. The child uses associated context, his knowledge of the world around him. "We have Pepsi in Finland, it's a soft drink. I don't know how to read it but I just know it." His motivation and interest is in the meaning he puts into the symbol from his experience. The child was asked why saying the word isn't reading it.
He answered that saying is easy when you know the word. He added that sometimes he says the letters but he doesn’t know the word.

“That word Tarjous means bargain or for sale but I can’t say the word.” The child proceeded to say it and with a giggle of surprise said, “It is for sale, it’s tarjous. That’s the first time I’ve read it.”

The child used context to guess at the word, focusing on graphic information to produce the “sound” he discovered he had in his language. Although the child had not been taught he read the word. Did he profit from the high letter-sound consistency? Did he decode the word first? He said he couldn’t say it but after reporting on its meaning, he said it. Does the child have to be taught decoding approaches and does meaning come automatically with decoding to sound? Analyses of children’s oral reading miscues provide insight into the reader’s implicit knowledge of language and reading and suggestions for answering these questions. (9)

Weber’s (20) studies indicate that children seek to make sense out of print using meaningful language sense more than grapheme-phoneme features. Through experience and familiarity with the printed word symbol, through acting on the word, a child gets to know a word just as he “knows” or recognizes his world of objects, actions and events.

Smith (16) postulates a feature analytic model of the word recognition process admitting that we don’t know the rules by which it is accomplished. “We leave that part of learning to the child himself.” (17) The response to many words indicated specific graphic features were singled out by the reader as significant cues to be remembered: S in PEPSI, P in PANNKI, the logo in the bank, K in KODAK.

Upon seeing the DAARI a child said, “I know DAARI. It’s where we eat. I can say each letter (child pointed to each letter as he named each one.) Some day I’ll read.” The BAARI refers to restaurant.
The child seemed to separate reading from sounding for he said BAARI when he saw the word not after he said the letter names. It is easy to categorize spelling sound-relationships in the highly regular phonetic Finnish language for there is minimal interference and automatic decoding strategies can be easily discovered. Yet, the subjects in this study were at different levels of ability and awareness and reported that "sounding is not reading."--In reading, the child discovers the sound-symbol relationship for himself and has to organize his discoveries in a language system he knows. Meaning precedes sounding in word recognition and the reader moves from meaning to confirmation through sounding. (18)

AUKI (open) was given as a response to AVOINNA (open). The child recognized the similarity of meaning and his word recognition was based on the knowledge of his language.

OSUUSPANKKI was recognized by association with a logo which is the trademark of cooperative banks. Another child said, "I have seen that mark many times. That's the sign on banks." "PANKKI is like POLIISI (police). I know the word POLIISI because we live near one."

A child recognized PEPSI but said he didn't know the S in it. "If you tell me I can learn it. I have to try to remember it. Pita Ahkerointa muistamaan."

Some children responded, "En Tunne" which is "I don't recognize" used in personal reference, and others said "En Tieda," used in reference to knowing facts or information. Children achieve specificity of usage as they mature in their language use.

A child traced the initial K in KODAK because it was not clearly visible in the photograph. "I have to see the whole word although I know it is Kodak. We have one at home."

For APTEEKI a child said "LAAKEITA (medicine). An APTEEKI is a drugstore.

A sign with the word PAPERIA (paper) above LELUJA (toys) was read as if the two words were in a phrase, paper toys. The child dropped the final A in PAPERIA (noun) to make PAPERI (adjective).
He changed the part of speech to fit the meaning he put into it.

One child said "ARKISIN" (week days) is like his friend's name, TIMO SARKISIN. The pattern was familiar but he didn't sound out the word.

ILOISTA PAASIAISTA (Happy Easter was familiar to all. One child said, "ILOISTA JOLULUA" (Merry Xmas).

The children sounded words correctly and easily whether they knew what they meant or not. Many children said "tavainen ei ole lukemista" or sounding is not reading. Most teachers in Finland considered sounding out words and letters as a necessary pre-reading activity. Gibson (7) writes "For children learning to read, easy pronunciation may be helpful but even then only during the initial phases of reading." Baron and Thurston (3), however, found that pronounceability or the sound of the word was not an effective variable in word recognition and meaning can be derived from visual analysis alone.

Implications for Classroom Instruction

Semantic processing contributes to word recognition processes as seen in the children's recognition of some words and non-recognition of the letters in the words. Is knowing isolated words different from performance in reading sentences? Is the reading task different in different languages? Thorndike (19) asks, "Is reading national and language specific?" Many of the Finnish children knew the English words CRACKER, KODAK, COCA COLA, PEPSI.

Related research presents differing points of view. A study by Venezky (20) suggests that the high letter sound ability of the Finnish child does not guarantee high reading ability. Douglas' (1) study in Norway stressed the importance of phonetic regularity in the onset of reading and Hildreth (10) in her study of early reading in Russia found that the consistent rational alphabet of the language contributes to the easy and rapid early success of beginning readers.

The results of this study are significant for the classroom teacher who must be aware of learning strategies children use when they first begin the reading
process. Since learning to read is not totally dependent on formal instruction, prescriptive teaching packages designed to effect the onset of reading must be of questionable value. Teaching strategies based on spelling-sound relationships are not supported by clues from children's responses to print.

The complex interaction process of early reading requires a rich contextual setting. Children need much time and opportunity to tap all possible sources of information to find out what the print says. The child's language experience is his best source. Despite the apparent ease with which Finnish children learn the sounds of letters and the simple predictable spelling to sound correspondence, children reported they have to know the word before they can read. "Sounding does not produce meaning and the success of phonic instruction is ultimately dependent on the child's cognitive abilities. (2) Each child in the study seemed to construct his own rules and strategies for remembering.

Teaching letter-sound relationships is of questionable value because a child must grasp the idea for himself as his curiosity leads him to test his theories of what a word is. Teaching children to expect a one-to-one letter-sound correspondence is not useful for word identification when a reader needs to identify a word before he pronounces it. Especially in a language not as phonetically regular as Finnish, a child may find transfer difficulty in later reading if he is led to rely on a one to one sound-symbol correspondence. The hypothesis that children discover reading on their own is not just a wish without reality. Just as "discovery is not manageable" so learning to read cannot be "managed" by phonic instruction and teachers can only share in nurturing its growth. (1p)
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