DOCUMENT RESUME

ED 060 743   FL 003 022

AUTHOR   Soderbergh, Ragnhild
TITLE   Reading in Early Childhood.
INSTITUTION   Laval Univ., Quebec. International Center on
                Bilingualism.
PUB DATE   Nov 71
NOTE   25p.; In "Conference on Child Language," preprints of
                papers presented at the Conference, Chicago,
                Illinois, November 22-24, 1971, p21-44a

EDRS PRICE   MF-$0.65 HC-$3.29
DESCRIPTORS   Beginning Reading; *Child Language; Children;
                Comparative Analysis; Early Childhood; Early
                Childhood Education; Educational Experiments;
                Language Development; Language Patterns; Language
                Research; *Learning Processes; *Linguistic Theory;
                Morphology (Languages); Reading Ability; *Reading
                Development; Reading Instruction; *Reading Research;
                Structural Analysis

ABSTRACT
        The reading instruction experiment described in this
report is based on the theory that, if a child learns to talk without
formal instruction solely by being exposed to language and if written
language is to be considered as an independent system, a child could
learn to read at the same age and in the same way as he is learning
to talk, solely by being exposed to written language. He would then
attack the written material, forming hypotheses, building models, and
discovering the code of the written language--its morphemic,
syntactic, and semantic systems. The author describes 14 months of
work teaching a two-year old to read. Details of the procedures and
the results are provided. After this period, the child is capable of
storing, analyzing, and comparing written words and arrives at a
knowledge of the grapho-phonemic correspondences that is a
prerequisite for being able to decode any written message.
(Author/VM)

Ragnhild Söderbergh:

Reading in Early Childhood.
===========================

This paper is a summary of my book "Reading in Early Childhood.
A Linguistic Study of a Swedish Preschool Child's Gradual Acquisition
of Reading Ability" (Stockholm 1971).

I have closely stud'ed a child learning to read from the age of
two years and four months by the method accounted for by Glenn Doman
in his book "How to Teach Your Baby to Read" (New York 1964). By this
method the child learns whole words as entities. I have shown how the
child, as it learns more and more words, gradually breaks down these
words into smaller units: first morphemes, then graphemes. At last the
child arrives at an understanding of the correspondences between sound
(phoneme) and letter (grapheme) and is able to read any new word through
analysis and synthesis. In my experiment this stage is reached after 14
months of reading, i.e. when the child is three years and a half.

The findings of this study have been viewed in the light of recent
linguistic theories as presented by research workers in child language
inspired by Chomsky - such as Brown, Bellugi and Lehneberg.

Chapter One.
Learning to read. Theories and methods confronted with different
linguistic theories.

In this chapter a short summary is given of the debate on reading
in the USA in the 1950s. The authors main source here has been Jeanne
Chall "Learning to Read. The Great Debate" (New York 1967).

According to Jeanne Chall there are - theoretically - two domina-
ting methods in reading instruction, the phonics method and the rea-
ding-for-meaning method. In practice however there is often a mix-
ture between the two.

The pure phonics method implies that the pupil is taught the
letters of the alphabet and the corresponding sounds. Then he is
taught to read by "sounding and blending", i.e. he sunds out the new
words and then synthesizes the sounds so that the right word is
produced.

The sponsors of the reading-for-meaning method oppose this - as
they think - unnatural and boring way of reading and instead teach
whole words and sentences from the very beginning, thus giving their
pupils at once the experience of what are the ultimate goals of rea-
ding: comprehension, appreciation and - finnally - application.

In the pure phonics method the child is presented with the code and taught how to use it. In the extreme reading-for-meaning method the child is not taught the code.

Jeanne Chall has summarized the results of recent research in England and the USA on methods in beginning reading and arrives at the following conclusions: "Early stress on code learning ... not only produces better word recognition and spelling, but also makes it easier for the child eventually to read with understanding" (Chall, p. 83).

Chall gains support for the view that an early acquisition of the code is necessary also from the theoretical considerations of linguists, particularly Leonard Bloomfield and Charles C. Fries. These linguists, however, both consider written language as secondary to and completely dependent on spoken language. Bloomfield is apt to disregard written language altogether, from a scientific, linguistic point of view: "Writing is not language but merely a way of recording language by means of visible marks" (Language, p. 21).

Bloomfield was the linguistic pioneer of his time, and his views dominate the opinions of many linguists during the 1940s and 1950s. Recently, however, the written language has been considered an object worthy of investigation independently of the corresponding spoken language. There has been a strong tendency among linguists towards stressing the differences between the two codes, differences not only on the phonemic-graphemic level but also as regards morphemics and syntax. Linguists have even claimed that written language should be considered as a more or less independent system. (See Sture Allén, W. Nelson Francis, H.A. Gleason and H.J. Uldall).

The current trend in linguistics represented by Chomsky and his school has more or less revolutionized the ideas about language learning and language acquisition. According to Chomsky we have a biologically founded innate capacity for language. This means that when a child is exposed to language he does not just imitate but attacks the language he is being exposed to, observing it and constructing hypotheses about it. He builds his own model of the language, working out his own linguistic system consisting of sets of rules which are gross approximations of the correct system. As he is exposed to more and more linguistic material and as he is able to test his model by actual use of the rules when speaking, these rules are continually reconstructed and modified until, finally, the model becomes identical with the normal adult model. Chomsky's theories have been partly verified by many studies on child language presented during the 1960s, by Robert Brown, Ursula Bellugi, Colin Fraser, Paula Menyuk and others. Belief in the

biological foundations of language has been convincingly advocated
also by Lenneberg in a book so titled which appeared in 1967. Accor-
ding to Lenneberg it is undisputable that the onset of speech and of
certain linguistic abilities such as babbling, speaking isolated
words, producing two word sentences etc. are determined by matura-
tional processes (Lenneberg p. 127 f.).

The maturational processes and the innate capacity that cause
children to start learning to speak at a certain age (18-28 months)
without any form of instruction - the only requirement being that
they are exposed to language - should also explain why this highly
complicated learning process is being completed so quickly: within a
period of two years all basic syntactic constructions of the language
are mastered by the child.

Now, if a child learns to talk at a certain age without formal
instruction, solely by being exposed to language, and if written
language is to be considered as an independent system, why cannot
a child learn to read at the same age and in the same way as he is
learning to talk, solely by being exposed to written language? He
would then be supposed to attack the written material, forming hy-
potheses, building models, a l l b y h i m s e l f discovering the
code of the written language, of its morphematic, syntactic and se-
mantic systems etc.

That this is possible we know from the fact that some children
learn to read "all by themselves", i.e. just by observing a text
while listening to other people reading it.

In a talk given at the annual meeting of American reading specia-
lists in Boston, in April 1968, professor Arthur I. Gates, one of the
foremost reading specialists in the United States, said that a recent-
ly finished investigation in the USA has shown that 80% of the child-
ren beginning school in the USA can read a certain number of words.
There are also facts revealed in this investigation that hint at the
possibility that very soon children will learn to read exactly in the
same way as they now learn to understand and express themselves in
spoken language, i.e. by living a normally active and verbal life.

That children can learn to read at an early age without real in-
struction is well known, but how children succeed in doing so has not
yet been systematically studied. The chief interest then - when the
child is learning to read a language written with an alphabet - must
be centered on the following question: how does the child on its own
discover the relations between letters (graphemes) and sounds (phonemes)
Not until these correspondences are evident to the child, he can be
said to have achieved full reading ability, i.e. to be able to read any

word irrespectively of whether he has seen that word earlier or not.

Chapter Two

The aim of this treatise. Method used in the experiment

The author decided to learn a child to read from about the age of two in a way that as much as possible resembles the way in which spoken language is acquired, i.e. to present (written) words and sentences in such contexts as to make clear the meaning of these words and sentences. Then the author intended to study the process by which the child arrives at full reading ability, i.e. at the understanding of the correspondences between letters and sounds.

For me to be able to follow this process, however, the child must in some way communicate it to me. The most reasonable way of communication, then, seemed to be through speech: the child must read aloud, which meant that I had to present written language to the child through the medium of spoken language, by showing written words and telling what they said. But this had to be done with an absolute minimum of instruction. To this end I chose the Doman method.

For the benefit of the reader, I shall here give an account of Doman's method, trying to analyse it and to state in what respects it might accord with or violate our principle of "free exposure" without inflicting any instruction on the child.

Words are written on cards, one word on each card. To begin with the letters should be red and 12.5 cm high [1] The cards are presented to the child at a maximum rate of one a day.

The first word is mother. When the child says "mother" as soon as you show that card, you go to the next card, which reads father. When you are sure that the child can discriminate the "mother" card from the "father" card you proceed to nouns denoting parts of the body (hand, nose, ear etc.). These words are written with 10 cm high red letters.

---

1) The letters should be red to attract the attention of the child and they should be big enough to make even a small child able to perceive the word. Doman makes a great point of this. In his opinion the reason why small children do not learn to read all by themselves at a very early age is that the letters of printed matter are generally not big enough.

Then you go on to what Doman calls the vocabulary of the home: words denoting the child's toys and other personal belongings, words denoting well-known things in the house etc. The child should be able to see and touch the thing at the same time as the "teacher" pronounces the word and shows the card to him [2].

The domestic vocabylary also includes some verbs denoting simple actions well known to the child. The teacher may, to begin with, illustrate a verb by performing the action at the same time as he pronounces the corresponding word and shows the card. The domestic vocabulary should be written down in red letters 7.5 cm high.

All the time the "teacher" should be careful not to go on presenting new words without making sure that the child recognizes the old ones.

Then a book is provided. It should be a very simple and short book, not containing more than 150 different words. The lette.. should be 3/4 cm high.

The "teacher" copies the book, rewriting it in black letters 2.5 cm high. Then each word is written on a card, in 5 cm high b l a c k letters. These cards are presented to the child one by one in the same way as before.

When the child knows all the words, the words are put together to form the sentences of the book. The cards are put on the floor side by side, and the child now learns to read sentences, one sentence a day. When the child can read all the sentences of the book in this way he is given the handwritten copy of the book and is taught to read the sentences from this copy: reading left to right, from the top of the page to the bottom of the page.

When the child is well familiar with this handwritten copy, the printed book is presented to him. And now he will be able to read this fluently, in spite of the fact that the letters are only 3/4 cm high. [3]

You go on with other books, and now it is not necessary to have an intermediate handwritten copy. All words new to the child are written down on cards and shown to him. When the child knows these words he gets the new book etc.

---

2) In this way one makes sure not only that a strong association is established between the written and the spoken form but also that meaning is attached immedately to the written form.
3) Note the successive adaptation to smaller and smaller letters.

After the child has read one or two books, you write down the alphabet small letters and capitals, each letter on one card. You present the cards to the child, telling him the names of the letters like this: about a"This is a small 'ei' ", about A "This is a capital 'ei' ", etc.

It is to be observed that the child is not taught the sound values of the letters but is just given the conventional names - with the qualifier "small" and "capital" included in the name of the letter. This is obviously done to help the child to discern the letters within the word units.

By presenting the letters you no doubt draw the child's a t t e n- t i o n to the code. But as one avoids any kind of sounding and in- stead obscures what associations there might occur between letter and sound by adding the qualifier "small" and "capital" to the con- ventional name of the letter, this presentation cannot be said to help the child to discover the relations between letters and sounds. Nor, as the letters are presented in their alphabetic order without being grouped according to distinctive features, do you give any hints about the graphematic system; instead the child is left to make the discoveries totally on its own.

The real instruction given is purely technical and non-linguistic. The child is taught to read from left to right and from the top of the page to the bottom. The child is taught to turn the pages right- left.

By using the Doman method you <u>leave it to the child</u> to find out the interrelations between the codes of the written language and the spoken language all by himself.

The Doman method is, then, a way of presenting written material to a child <u>with a minimum of instruction and through the medium of the spoken language.</u>

Using the Doman method it is therefore possible to make observa- tions about how a child discovers the correspondences between letters and sounds, how he succeeds in interrelating the graphematic and the phonematic systems - in "breaking the code" - which is the necessary prerequisite if he is to attain full reading ability.

<u>Chapter Three</u>
<u>The experiment.</u>

The experiment started at the end of September 1965. A girl, two years and four months old, was taught to read. During the first six weeks she was shown 50 concrete nouns and verbs.

From the middle of November the vocabulary of the first book was shown to her, and the girl read this book on the 22nd of December 1965.

The experiment was then continued with new books. All the time notes were taken about the girl's reactions and comments on reading-cards and reading.

At the beginning of March, 1966, the girl spontaneously tried to read some of the new cards I presented to her. These readings were noted down. At the beginning of April 1966 these spontaneous readings had become so frequent that I changed the method of showing new cards. Instead of taking a new card and saying "This reads X", I took the new card, showed it to her and asked "What does this read?". Often she suggested many different readings. Every attempt at reading was carefully noted down. In cases where the girl did not succeed in arriving at a correct reading, I finally read the cards aloud to her.

In August there was no reading because of my holidays. On September 1st the experiment was continued. At the beginning of November 1966 the child was able to read almost any new word presented to her on a card: the code had been broken.

From the beginning of December 1966 the child was given new books d i r e c t l y, without the intermediate stage of showing cards. The girl read the books aloud to me and I took notes. Some grapho-phonematic irregularities in Swedish (such as the spelling of /ç/) were not mastered by the girl until the autumn of 1967.

Chapter Four

First period (Sep. 30th 1965 - Dec. 22nd 1965):
From the first word to the first book

From the very first day the girl was enthusiastic about the reading cards. She treated the cards as if they actually were the persons or things written on them. The cards with mormor (grandmother) and morfar (grandfather) became favourites, and words with unpleasant associations were met with disgust ("Mother, I get so frightened when it says frightful on a reading card").

When we started with the vocabulary of the first book, the girl was shown a few so-called functors (prepositions, conjunctions, pronouns etc.). These turned out to be difficult to grasp. It is to be observed, that children learning to talk acquire - the often unstressed - functors later than nouns, verbs and adjectives, which normally have heavy stress (comp. Robert Brown and Ursula Bellugi "Three Processes in the Child's Acquisition of Syntax' (1964)).

Already at the end of the first reading month the girl observed similarities between different words: "Mother _mage_ (stomach) is like _öga_ (eye)".

In the third month of reading the girl learnt the word _precis_. She then observed: "_precis_ liknar _pappa_" (_precis_ is like _pappa_) - pointing at the _p_ in _precis_ - "men i _pappa_ e de tre stycken" (but in _pappa_ there are three of them).

This shows three things: 1. she was able to discern the letter _p_ in _precis_ and looked on it as an entity; 2. she was able to identify and sum up three samples of the same entity; 3. she had a visual image of the word _pappa_ that was strong enough to enable her to pick out the three _p's_ from it.

The visual image of the word _pappa_ must have been very clear. This does not imply, however, that all the other words the girl was able to recognize were necessarily as clear in her visual memory. _Pappa_ belonged to the early words; it does contain only two different kinds of letters; it is symmetrically built up with the double _p_ surrounded by _a's_ on each side, and it appealed to the girl's emotions.

Nevertheless her observations on _precis_ and _pappa_ give us a cue to the process behind the acquisition of reading ability: words are learnt visually and s t o r e d. As soon as a new word is introduced, this word is not only "put into the bag" but it is analysed and compared with the visual images of the words learnt before. By means of such comparisons structure is discovered.

Further evidence of this process is that the girl, when she was shown a new word that very much resembled an earlier learnt one, often told me to show her this earlier word. On being shown the new word _det_ she said "_det_ is like _dem_, show _dem_ to me and let us compare".

Chapter Five

Second period (Dec. 23rd 1965 - March 31st 1966): The first attempts at spontaneous reading of new words

During this period functors still seemed to be a bit difficult, but the girl solved the problem by immediately putting them into a linguistic context. On getting _fram_ (along) she said "Vi går _fram_" (We go along). Many other examples can be given.

From the beginning of March the girl made spontaneous efforts to read new words by herself.

The new words that the girl tried to read were all made up of material from words learnt earlier, i.e. they might be: 1. parts of already learnt words 2. combinations of words and/or parts of words learnt before.

The method of putting all the words of the books on reading cards gave me a complete index to the child's reading vocabulary. This enabled me to find very easily the p a t t e r n s for every attempted independent reading of a new word.

According to how the girl made use of already learnt material when trying to read new words, the attempted readings could be divided into three groups, here called <u>adjunctions</u>, <u>deletions</u> and <u>substitutions</u>.

<u>Adjunctions</u>. On the 1st of March the girl was shown the new word <u>bäcken</u> and read it correctly. Earlier she had learnt to read <u>bäck</u>. The rest of the word was also well known to her as she had already met <u>en</u> as an indefinite article eleven times in her first book. I assume the underlying process producing the correct reading <u>bäcken</u> to be as follows.
1. First <u>bäcken</u> is analysed into two parts, <u>bäck</u> and <u>en</u>. The child is able to make this analysis because she is well acquainted with these parts as written entities.
2. The two parts are then read together, forming a spoken entity that is well known to the child and immediately associated with a meaning.
3. Thus the new graphic entity <u>bäcken</u> is tied to the corresponding spoken entity and is associated with the same meaning, all without the interference of the teacher.

Putting the stress on the second step in the process, which is the adding up of already known entities, we call this reading <u>adjunction</u>.

In the examples given above two parts already learned as separate graphic entities are put together. A more complicated kind of adjunction was made for the first time at the end of March when the new word <u>pengarna</u> was read correctly. Earlier the girl had learnt to read <u>pengar</u>. But the rest of the word, -<u>na</u>, does not occur as an isolated entity; it is a so-called bound morpheme, functioning as a definite article in the plural: pojkar<u>na</u>, flickor<u>na</u>, ballonger<u>na</u> etc. The adjunction here implies putting together one entity already learnt as a "word image" with another entity that is only a <u>part</u> of word images learnt before.

To be able to read <u>pengarna</u> the child must thus be able to recognize -<u>na</u> from previously learnt written words with this ending, i.e. she must already have made a grapho-morphemic analysis of these words.

At the moment of the independent correct reading of <u>pengarna</u> the girl had already met the following words ending in -<u>na</u>: <u>tassarna</u>, <u>kattungarna</u>, <u>fjärilarna</u>, <u>fåglarna</u>, <u>grodorna</u>, <u>insekterna</u>, <u>blommorna</u>. The

question is now: How did she succeed in distinguishing -na as an entity?

Above we have shown that as soon as the girl learnt a new word, she compared this word with similar ones learnt earlier and tried to find out the differences between them. In two of the books read by the girl before she made the correct reading pengar-na she had met the word kattungar, which word appeared twice before she met kattungarna (compare above!). In the word pair kattungar - kattungarna the only difference is -na, and as soon as the child had found this out she had in fact made the grapho-morphemic analysis necessary to look at -na as an entity within the higher units tassarna, kattungarna, fjärilarna etc.

Theoretically she would now be able to read any previously learnt word + na.

Deletions. On the 2nd of March the girl read the new word ugglan. Earlier she had learnt ugglans. To make such a reading the girl must be able to analyse ugglans into ugglan + s, an analysis made possible by pairs occurring earlier, such as Anna - Annas, Astrid - Astrids, Mirran - Mirrans etc. I assume the underlying process to be as follows:

1. ugglan calls up the mental image of ugglans, learnt earlier;
2. ugglan is compared with ugglans and the difference is observed;
3. on the basis of pairs like Anna - Annas etc. -s has already been identified as a meaningful unit. This helps the readier to analyse ugglans into ugglan + s and to recognize the new word ugglan as ugglan(s).

If we stress this last part of the process we might call the reading deletion.

Substitutions. On the 25th of March the girl was shown the word hittade. She read it as hittde. Although unsuccessful, this reading was the earliest example of a third type of spontaneous reading on the basis of material learnt earlier.

An already known word was hittat. The graphemic sequence de was well known as a separate word (she had not met it earlier as a bound morpheme in verbs because her books so far had been written in the present tense). The mental process is assumed to be as follows: When being shown hittade the girl remembers first hittat then de. She realizes that hittade is hittat minus something at the end plus -de, and she then deletes -at and adds -de, that is substitutes -de for -at getting the (incorrect) form hittde. This reading might thus be called a substitution.

Adjunctions, deletions and substitutions are the result of an a n a l y s i s of the presented words; we therefore choose to call

these readings <u>analytical readings</u>.

During this period the girl also made technical progress in rea-
ding aloud.

When reading her first book the girl had been taught to point at
the words. This was to accustom her to the left-to-right convention
and to make sure that she did not skip any words.

On the 4th of March I noticed the girl sitting in a corner rea-
ding a book that she had finished a fortnight earlier. She read it
whispering and without pointing. About three weeks later (March 23rd)
she had just finished the reading-cards of another book and was going
to read it aloud to me for the first time. She then read it without
pointing. I did not make any comments to her about this, but I noticed
that her reading now was much more like natural speech. When pointing
she had been apt to make pauses between every word. After some minutes,
however, she suddenly began to point, then interruted herself: "No,
it is much better not to point". "Much better" probably meant that she
experienced reading without pointing as more meaningful. She was then
able to take in bigger portions of the text at one time; her eyes
could always be a good bit ahead of her voice and so the understanding
of the text was better. Evidence of better understanding was the fact
that her intonation, stress and reading rhythm improved when she did
not point.

Chapter Six
<u>Third period (April 1st 1966 - Oct. 31st 1966): Introduction.</u>
<u>The misidentifications</u>

From April 1966 the girl is asked to try to read all new words by
herself. Generally she makes at least one try to read every word.
These tries may be analytical readings - right or wrong. They may also
be so-called <u>misidentifications</u>, which means that a new word is mis-
taken for an already learnt word - as when <u>mugg</u> (cup) is taken to be
<u>mun</u> (mouth) or <u>sig</u> (himself) is read <u>sin</u> (his). When making a misi-
dentification the reader evidently is looking upon the new word as
an entity.

It is significant that the proportion of misidentifications -
where the new words are treated as entities - to analytical readings
remains constant, during April, May, June, July and September, the ana-
lytical readings being 3,5 to 5 times as common as the misidentifica-
tions, <u>until the month of October when the code is broken</u>. Then the an:
lytical readings become 18 times more numerous than the misidentifi-
cations.

The reason for this change is that in October when the code is broken - i.e. when the girl suddenly understands completely the correspondence between grapheme and phoneme - she begins to use a quite new analytical technique when trying to read new words that cannot be read by means of adjunctions etc. of previously learnt words or morphemes: she "sounds" the words letter by letter. Earlier, on being asked to read a word that resisted the operations of adjunction etc. she had often just suggested a word learnt previously that locked similar, i.e. made ("misidentification". At the time when, as soon as a difficult new word is attacked, the analytical-synthetical process of identifying graphemes, sounding them and adding the sounds replaces the mere "looking", we may safely presume that full reading ability is being attained.

Thus the increase in the analytical readings as compared with the misidentifications indicates that in October the girl is reaching the stage of full reading ability.

From what has been said above it might be concluded that the misidentifications are the result of an inferior kind of reading in which a new word is carelessly observed, without any kind of analysis, and mistaken for one learnt earlier. This is not true, however. Some of the misidentifications are the result of chance readings, but as a rule they are the outcome of most careful considerations.

An investigation of the misidentifications shows that certain rather constant relations, as to length, letters and position of letters, exist between a new word given and the word it is wrongly supposed to be.

As to the length of a new word given compared with the word it is wrongly supposed to be, the following observations have been made:

1. Out of 121 misidentified words 40 % (48) have been mistaken for words of exactly the same length and another 35 % (42) have been mistaken for words that are just one letter shorter of longer. 19 % (23) have been mistaken for words that are two letters shorter or longer and only 6 % (8) for words that are three to five letters shorter or longer.

2. Words shorter than three letters are not misidentified.

3. A word given that is three letters long or more is never mistaken for a word that is shorter than three letters.

4. Apart from this the length of a word assumed does not seem to differ from the length of the corresponding word given by more than about half the number of the letters in the word given.

5. It is also evident that the shorter a word given, the more often it is mistaken for a word of exactly the same length.

As to the number of letters common to a new word given and the word it is wrongly supposed to be, I have observed that when a new word is mistaken for a previously learnt word, on average 65 % of the letters in the new word are contained in the previously learnt word it is wrongly supposed to be.

In only 12 out of 121 cases of misidentification the order between the common letters is not the same in the new word given as in the word it is assumed to be.

At last the author has tried to find a way to measure the degree of similarity (S) between a word given and the word it is assumed to be, a way which takes into account the following facts: length of words, letters in common, order of common letters and position of common letters.

An investigation shows that this S is surprisingly constant. There is some tendency, however, towards a lesser degree of similarity when the word given becomes longer.

Chapter Seven
Third period (April 1st 1966 - Oct. 31st 1966): Analytical readings of morphemes

The growing reading skill - that is the gradual development towards an insight into the grapho-phonematic correspondences, and a capacity for using this insight actively when reading new words - is reflected in the a n a l y t i c a l   r e a d i n g s. Both independent and dependent morphemes are involved in the processes. Analytical readings with only independent morphemes might be considered as comparatively easy, because these morphemes may occur as separate graphic entities. The handling of dependent morphemes is, however, a bit more complicated, as these only occur tied to other morphemes. The reader must thus be able to abstract the dependent morphemes from previously learnt words in order to cope with them in analytical readings of new words presented.

The dependent morphemes are only gradually mastered. In the table below we have a survey of the use of simple dependent morphemes in analytical readings during the different months. The first appearance of a morpheme is marked with an italicized x.

	March	April	May	June	July	Sept.	Oct.
-a	x	x	x	x	x	x	x
-an		x			x	x	x
-ande				x		x	
-ar	x	x	x	x	x	x	x
-are			x	x		x	x
-d				x		x	
-de	x	x	x	x	x	x	x
-e			x	x	x	x	x
-el							x
-en	x	x	x	x	x	x	x
-er		x	x	x	x	x	x
-et			x	x	x	x	x
-ig			x				
-ing			x				
-is					x		
-it					x		
-n				x	x	x	x
-na	x	x	x	x	x	x	x
-or		x	x	x	x	x	x
-r		x	x	x	x	x	x
-s	x		x	x	x	x	x
-t			x	x	x	x	x
-te				x		x	x

When we looked at the analytical readings pengar+na and ugglan(s) above, we found that there were patterns in the earlier reading material which made these readings possible. An investigation of the 23 morphemes in the table above shows that 18 of these have clear patterns in earlier reading material, when they appear for the first time in an analytical reading. The five morphemes without immediate patterns (-ande, -d, -ig, -ing and -is) might themselves be explained as the result of analytical readings: -ing for instance might be looked upon as a deletion ing(en), where en (one) has been deleted from ingen (nobody).

Dependent morphemes are being used in analytical processes from March and on. As March is the very first month of analytical reading, it is quite evident that the processes themselves (adjunction, deletion, substitution) are very difficult to the reader. Deletion, however, being a passive process, must be easier than adjunction. In the same way the first part of a substitution (which is in fact a deletion) must be easier than the second part (which is an adjunction). An investigation of the material shows that during March and April dependent morphemes are always introduced in passive processes. From May onward, however, not only morphemes previously introduced figure in the active processes; all "new" morphemes occur directly in adjunctions and in the active part of substitutions. That the reader has attained greater skill in May is also evident from the fact that in this month for the first time we find correct readings of new words containing dependent morphemes without immediate patterns in earlier reading material (compare above).

The reader's growing skill also manifests itself in an ability to cope with more and more complicated structures. In March only s i n g l e dependent morphemes are used in the analytical readings. But from April s t r i n g s of morphemes also appear, as when the new bilarna is read correctly because the reading material already known contains bil and pairs like boll - bollar, klapp - klappar, ankor - ankorna, blommor - blommorna etc. from which the dependent morphemes -ar and -na might be drawn.

As time passes on, more and more strings of dependent morphemes are introduced into the analytical readings. A table of these strings and their occurence during the different months, with the first appearance of every string denoted by an italicized x, looks like this:

	April	May	June	July	Sept.	Oct.
-a-de	x		x	x	x	x
-a-de-s				x		
-an-de-s			x			
-ar-na	x	x		x	x	x
-are-n				x		

	April	May	June	July	Sept.	Oct.
-de-s			x			
-en-s				x	x	
-er-na		x				x
-ing-a)				x		
-lig-a		x				
-lig-ast						x
-lig-en						x
-lig-t					x	
-na-de					x	
-na-r						x
-na-s					x	
-ning-en				x	x	
-ning-s						x
-or-na		x	x			x
-r-na				x		
-st-e					x	

Now, what are the patterns for each one of these strings of dependent morphemes when they first appear in analytical readings?

Three cases occur:

1. There may be patterns for the w h o l e s t r i n g of morphemes, as when somliga (16.5) is read as an adjunction of som and -liga - - where the combination -lig-a might be drawn from vän - vänliga, which words occur already in March. When there are patterns for the whole string, the analytical reading is mainly of the same kind as where a s i m p l e morpheme is involved.

2. The process is more complicated, however, when there are patterns only for each one of the morphemes in the string, i.e. the reader must herself combine the parts. This is the case when bilderna (22.5) is read as an adjunction of the earlier learnt bild, -er, mastered

in April, and -na mastered in March.

3. We have a slightly more complicated case when one or more parts in the string has no immediate patterns but must be produced by means of analytical readings. This happens when, in September, jätteroligt is read as an adjunction, where -lig must be formed on the base of the already mastered -liga by deleting -a.

The material shows that the more complicated types 2 and 3 increase whereas the easier type 1 decreases as time is passing.

Now what about the wrong analytical readings? The number is steadily decreasing, from 44% in April to 25% in October. It should also be noted that the mistakes very seldom occur with the dependent morphemes: in only 13% of the analytical readings containing dependent morphemes there is a mistake involved in the reading of a morpheme during April - July; in September the percent is still lower, only 5. The mistakes instead occur with the bases of the words, as when gröten is read grönen, i.e. the base gröt (porridge) is supposed to be grön (green).

Chapter Eight

Third period (April 1st 1966 - Oct. 31st 1966): Analytical readings of graphemes

We have observed that the analytical readings start in March with simple morphemes; strings of morphemes do not occur until April and are only gradually mastered. In April there are also instances of readings of "false" morphemes. The word fönster-ruta (window-pane) is read as fönster + ut + a (window + out + "a"), where the identification of the a is made possible by the fact that -a has previously been learnt as a dependent morpheme and that -a in fönsterruta takes the same position as the dependent morpheme -a in grön-a, läs-a etc. - it is a "false" morpheme.

With the "false" morphemes the reader is not supported by the semantic component. To make the reading fönsterruta she must depend solely on her knowledge of grapho-phonematic correspondences in certain positions: that, for instance, an -a corresponds to an /-a/.

From here it is a short step, however, to the realization that a certain grapheme may correspond to a certain phoneme in many positions, some times in a n y position. When this is realized the reader has left the morphematic level and has entered the g r a p h e m a t i c r e a d i n g l e v e l. A still more advanced stage has been reached when the reader makes analytical readings using graphemes which are not homographic with morphemes, such as b, k, l, m.

A reading is, however, very seldom solely graphematic. Often one or two dependent and/or independent morphemes are involved in the reading process together with one or many graphemes. A reading is, however considered as graphematic when the child's way of reading or the child's own comments give clear evidence. A few examples should be given.

A m i s r e a d i n g may often give us the clue to the reading process, as when gråta (weep) is read /grɔta/, with a short å-vowel, which shows that -åta has been mistaken for åtta (eight), part of the earlier reading material. Thus the reading process must be an adjunction of the grapheme string gr- and the independent morpheme (word) åtta.

Two or more s u c c e s s i v e r e a d i n g s might give us the clue. This is the case when ägg (egg) is read "lägg ... ägg": the earlier material contains lägger (puts) from which the morpheme -er is first deleted. Then the grapheme l is taken away. Other examples are länge read "hängde ... längde" (hängde was part of the old reading material), bur read "bu ... bur" and brum "rum ... brum" (bu and rum being part of the previous reading material).

Another way of reading which reveals what parts are observed is s e c t i o n i n g. When musikkår (band) is read /mʉ:s-i:-k-spɔ:r/ (the earlier material contains the words mus, (mouse) i (in) and spår (track)), it is evident that k is added as a grapheme to the rest.

The sectioning is a most important criterion of graphematic reading. At the end of October högre is read /høː-gr-e/ in spite of the fact that the earlier reading material contains both höga and högar, which would lead us to expect the morphematic substitution hög/a, -re or hög/ar, -re. In this case, however, /høː-gr-e/ is considered to be a g r a p h e m a t i c reading on account of the sectioning, although there do exist patterns for a morphematic reading. It is to be observed that not until October do such instances occur.

Sometimes the girl herself reveals, by comments on the reading material, that the patterns she uses are graphematic. The earliest example is from the 16th of May. On being presented with the earlier unknown parken the girl reads it correctly. I ask her: "How can you read that?" She answers: "I have had marken before." The process must thus be substitution: m- in marken is replaced by p- .

Following Sture Allén the author makes a distinction between autographemes and syngraphemes. In Swedish the autographemes are a, e, i, o, u, y, å, ä, ö, the syngraphemes are b, c, d, f, g, h, j, k, l, m, n, p, r, s, t, v, w, x and z. Then the grapho-phonematic relations in Swedish are discussed.

The author then treats the readings where the girl handles
such syngraphemes as are not homographs of morphemes. (The
autographemes are excluded for two reasons. First some of them
are homographs of independent or dependent morphemes. Second all
autographemes correspond to one long phoneme-variant which is used
when the alphabet is recited.)

Eleven syngraphemes without corresponding homographic
morphemes appear in graphematic readings during the period of
April - October 1966. In the table below first appearance has
been italicized. If a grapheme during one month only occurs in
passive processes - deleted or substituted - it has been put
within parentheses.

April	May	June	July	Sept.	Oct.
	p	(p)	p	p	p
b	b	—	b	b	b
	m	—	m	m	m
			v	v	v
				f	f
	k	k	k	k	k
g			g	g	g
			j	j	j
		(h)	*h*	h	h
		l	l	l	l
					c

From the table above we see that more and more syngraphemes
without homographic morphemes are used in graphematic readings: in
April there are only <u>b</u> and <u>g</u>; then one or two further graphemes are
added every month, until in October all 11 syngraphemes are used. It
is to be observed that the syngraphemes with one or several phonematic correspondences are always read in the most "normal" way: <u>k</u> is
read /k/, <u>g</u> /g/, <u>j</u> /j/ and <u>c</u> /s/.

When a graphematic reading is made, this means that the reader
has realized the "sound-value" of a grapheme or a sequence of graphemes, which is to say the grapho-phonematic correspondence in
question. Such correspondences must be drawn from the reading material learnt earlier. By reading words beginning in <u>ba</u> ... /ba:/,
ba ... /bɑ:/, <u>bu</u> ... /bʉː/, <u>bå</u> ... /bɔ:/, etc. where the second
element is an autographeme, the sound value of which is known from
the reciting of the alphabet, the specific sound-value of <u>b</u> is easily
perceived. If we look at the first correct readings of syngraphemes
(cf. the table above: <u>b</u> and <u>g</u> in April, <u>p</u>, <u>m</u> and <u>k</u> in May etc.) and
examine earlier reading material, we will find that there are always
such clear patterns in this material.

If we look at all the graphematic readings during the April - October period we shall find that very often there are strong patterns in earlier reading material <u>for exactly the grapho-phonotactic structure of the surroundings of the grapheme thus read</u>. This tendency seems, however, to be weaker in the readings of September and October, which should indicate a growing reading skill where the occurrence of direct patterns is no longer necessary for the reader to produce a correct graphematic reading.

Let us take a few examples. 13 graphematic readings of <u>k</u> from May to September all have immediate patterns for the grapho-phonotactic structure of the immediate environment of the <u>k</u>. We find <u>k</u> in the initial combinations <u>skr-</u>, <u>kr-</u>, <u>kl-</u>, <u>kv-</u>, <u>ka-</u>, <u>ko-</u>, in the final combinations <u>-ka</u>, <u>-kade</u>, <u>-kar</u>, <u>-ken</u>, and in the medial combinations <u>-ik-</u> and <u>-uk-</u>. In September, however, the reading /faskiti:sa/ - wrong for <u>faktiskt</u> - and in October the reading /k-i:-lade/ for <u>kilade</u> show a complete knowledge of the correspondence between <u>k</u> and /k/ without the support of surrounding graphemes. A <u>k</u> before an <u>i</u> being normally pronounced /ç/, there are no patterns for the correspondence <u>ki</u> /ki/. In the same way, the reading in October of <u>förarhytten</u> as /fø:rarhten/, where the <u>y</u> is overlooked, shows a sure knowledge of the correspondence <u>h</u> /h/.

The development towards analytical reading on the graphematic level is clearly illustrated by the fact that during the three last days of October the reader overlooks in many cases a more simple way of reading a word - through analysis into morphemes - and makes a more complicated graphematic reading.

As an example might be mentioned the reading of <u>bakåt</u>, where the easiest way would have been an adjunction of the wellknown parts <u>bak</u> and <u>åt</u>, but where the girl reads the word in three sections /ba: - k -ɔ:t/, isolating the syngrapheme in the middle of the word.

The final evidence, however, that the code has been broken and the child attained full reading ability was given on the 31st of December . Some weeks earlier I had told her a story in which the Nordic goddess Freja plays an important part. It may be noted that she had never seen the name <u>Freja</u> printed. On the 31st of December the girl asked me "Who do you think I am today? It begins with an <u>f</u> ... (spelling in a loud voice) <u>f</u>,<u>r</u>,<u>e</u> ... (almost silently, to herself) <u>fre</u> ..., <u>frej</u> ... (spelling again in a loud voice) <u>j</u>, <u>a</u>."

This transforming of a word from the spoken language to the written, from phonemes to graphemes, which is the reversed process /to/ graphematic reading, gives full evidence that the code has been broken by the child.

After a period of 14 months the child has, by observing, learning, storing, analysing and comparing written words, and through the processes of adjunction, deletion and substitution - first of morphemes and graphemes homographic with morphemes, then of non-morphematic graphemes - arrived at a knowledge of the grapho-phonematic correspondences that is a prerequisite for being able to decode any written message.

Chapter Nine
Capital letters. Double syngraphemes. Some grapho-phonematic
irregularities

New words written all in capitals are not mastered by the girl until November, i.e. when the code has been broken.

In Swedish double syngraphemes indicate a short vowel. Thus hat is pronounced /ha:t/, but hatt /hat/. This rule is not mastered by the girl until February - March 1967, and she still violates the rule now and then in April and May.

At the end of the chapter the grapho-phonematic irregularities of Swedish are discussed, and the girl's gradual mastering of the difficulties is described. All irregularities are mastered before November 1967. It is also evident that the rules are discovered gradually as the reading material affords patterns that might be imitated.

Chapter Ten
Conclusions. Some additional remarks on intonation, meaningful
reading, application, appreciation, writing and spelling.

In this chapter the result of the experiment is compared with the recommendations of Jeanne Chall, that the child should be taught the code. An important thing is that the children studied in the research work mentioned by Jeanne Chall are school children who start learning to read at the age of five and a half to seven. With Lenneberg, Chomsky and others in mind, we may suggest that a child two to three years old, the age of the extraordinary linguistic capacity, might profit more from a method which enables him to find out of the system all by himself.

At last some additional remarks on intonation etc. are made. The girl was not taught intonation when reading aloud, nor did she receive any instruction about punctuation marks. She also here found out by herself. It seems that much of this discovering was made when she reread the books. I sometimes noticed her sitting practising different

intonations and stress patterns when rereading the books aloud
to herself.

From the very beginning the girl intimately connected reading
and reality. New words on reading cards were often, in the girl's
comments, put in relation to known linguistic and non-linguistic
contexts. On reading the surname <u>Larsson</u> she interrupted herself
saying: "The little baby's father living down there, he is called
Larsson, and her grandfather (i.e. the baby's) is a bit bald".

Naturally, reading was experienced as more meaningful when the
girl read about things that were well known to her from real life.
But I have also witnessed that when she had first r e a d about
certain things and phenomena in her books, her later e x p e r i e n c e
of the thing in real life became much more intense and rich than it
would probably have been without the literary anticipation. Thus her
first sunset, experienced in August, 1967, was a sheer delight; and
the first time she saw cows grazing she was in a rapture, stopped
and shouted in a voice full of joy: "Oh, this must be a <u>pasture!</u>"
The sunsets and pastures of literature had finally come to life.

The girl's books also inspired her non-verbal life in many other
respects. She often introduced scenes from books into her games,
building houses after having read <u>The New House</u>, constructing roads
for her cars after having read <u>The New Road</u>. Last but not least, she
identified herself with all the heroes of the literature she read.

The problem of fiction and its relation to reality was very keen
to her. When, at the age of three years and nine months, she was rea-
ding the Dutch author Ninke van Hichtum's book about Mother Afke's ten
children she asked: "Have these people really <u>existed:</u>" "Possibly", I
said. "Yes", she replied, "for if so, we will meet them in Heaven and
then they can teach us to speak Dutch".

It is also evident that a small child can <u>appreciate</u> literature.
An example is given at the end of chapter ten:

A favourite book was <u>The Children's Bible</u> by Anne de Vries. I
noticed that the girl often stopped her oral reading of the Bible after
having finished a very dramatic passage, and then she went over this
passage again, silently. On the 21st of October, 1967, at the age of
four and a half, the girl had read about the crucification. She went
back and reread the passage telling how Jesus asks St. John to take
care of his mother Mary and be like a son to her ("When Jesus there-
fore saw his mother, and the disciple standing by, whom he loved, he
saith unto his mother, Woman, behold thy son! Then saith he to the
disciple, Behold thy mother! And from that hour that disciple took her
unto his own home".) She ten said: "<u>Det här var en fin liten dikt.</u>

Mitt emellan allt det hemska var det en fin liten dikt". (This is a fine little poem. In the middle of all the frightful things there is a fine little poem.)

At about the age of three and a half the girl began trying to write letters herself. For some reason she concentrated on the capitals. By July of 1967 she could write all capitals except B,J,M,N, Q,U,V and G in July only X was still now missing, and she then also failed to write ... and Y. On the first of ...mber, 196?, I tested her again and round ... that she then could write the whole alphabet, capitals and versals. By that time she had also begun to write little missives to invented ... sons.

When ... girl was four and a half ... her spelling had already become remarkab... good. Now, at the age of ... even and a half she simply know... how to spell and need... not devote any time to learning how. This ski... which is normally at... only after many years of hard school wor... had come to her quite... conciously as a by-product of her earl... ading. Would it not be... good thing if all children had this exp... nce: of learning to ... ead as easily as they learn to talk and of l... ...ing to spell without kno... ing that they are learning how; of havin... ...tained full literacy at... age when children normally begin to l... the ABC? During the fir... ...t school years a lot of time and hard wor... ...now being devoted to ac... uiring the elementary skills of reading an... ...re spelling. With these sk... ...is already at the pupil's command the...es ...ould be time for mor... ...ingful and stimulating work and activit...es ...ut school. Thus still mor... could be made of the wonderful, recepti...e ...d harmonious years befor... puberty.

Chapter Eleven
Suggestion for further investigation

Her... is stressed that thi... ...liminary study of one single child b... ...finished. the exper...ent should be carried out on many childre... ...the same age, let u... say 100 - 150. Such an extended study m... ...be done by a team of ... ...ists and psychologists. The... ...00 - 150 children sh...ld be followed through the years, and the ... ...ect of early reading o... ...eir general and linguistic development... ...investigated on.

Simil... studies might also b... ...ried out on children speaking other l... ...ages than Swedish. D... dif...erent lan...guages raise different problem... ...is it easier to find ou... ...the cod... of written Finnish, which i... ...most completely phon... ...? Might early reading along t...se lines be of importance to retar-

ded children? What about deaf children, if spoken language as a medium is replaced by picures, gestures and film?

There are numerous tasks involved in further investigation on this subject. As I see it, there is great hope that both normal and retarded children might benefit from this approach to attaining literacy, where learning to read is defined as learning a w r i t- t e n   l a n g u a g e   and where the learner is therefore exposed to suitable reading material at the age when   s p o k e n   l a n - g u a g e   is normally acquired - not acquired because the environ- ment imposes language upon the child at that age, but because the child has then reached a biological stage where his preparedness for language is at its prime.

Allén, Sture, Grafematisk analys som grundval för textedering. Göteborg 1965.
— Förhållandet mellan skrift och tal. (Språk, språkvård och kommunikation. Lund 1967.)
Bloomfield, Leonard, Language. New York 1963.
—: Linguistics and Reading. (Elementary English Review, vol. 19, 1942.)
Brantberg-Frigyes, Birgitta, Kan en treåring lära läsa. Lund 1969.
Brown, Robert and *Fraser, Colin*, The Acquisition of Syntax. (Verbal Behavior and Learning, ed. C. N. Cofer and B. S. Musgrave. New York 1963.)
Brown, Roger and *Bellugi, Ursula*, Three Processes in the Child's Acquisitioh of Syntax. (New Directions in the Study of Language, ed. Eric H. Lenneberg. Cambr. Mass. 1964.)
Chall, Jeanne, Learning to Read. The Great Debate. New York 1967.
Chomsky, Noam, Aspects of the Theory of Syntax. Cambr. Mass. 1965.
Communicating by Language. The Reading Process. (Proceedings of the Conference on Communicating by Language, The Reading Process, Febr. 11—13, 1968, ed. James F. Kavanagh.)
Dahlstedt, Karl-Hampus, Homonymi i nusvenskan. (Nysvenska Studier 1965.)
Doman, Glenn, Gow to Teach your Baby to Read. New York 1964.
Elert, Claes-Christian, Ljud och ord i svenskan. Stockholm 1970.
Erdmann, B. and *Dodge, R.*, Psychologische Untersuchungen über das Lesen. Halle 1898.
Flesch, Rudolf, Why Johnny Can't Read. New York 1955.
Francis, W. Nelson, Graphemic Analysis of Late Middle English Manuscripts. (Speculum XXXVII. 1962.)
Fries, Charles C., Linguistics and Reading. New York 1963.
Gates, Arthur I., Strømninger i tiden. (Published by Landsforeningen af Læsepædagoger on the occasion of The Second World Congress on Reading, Copenhagen, August 1968.)
Gleason, H. A., An Introduction to Descriptive Linguistics. New York 1966.
— Linguistics and English Grammar. New York 1965.
Gelb, I. J., A study of Writing. Chicago 1963.
Hayakawa, S. I., Language in Thought and Action. London 1959.
Hockett, Charles F., A Course in Modern Linguistics. New York 1958.
Huey, Edmund Burke, The Psychology and Pedagogy of Reading. Cambr. Mass. 1968. (First published 1908.)
Lenneberg, Eric H., Biological Foundations of Language. New York 1967.
Mc Carthy, D., Language Development in Children. (Manual of Child Psychology, ed. L. Carmichael. New York 1954).

Menyuk, Paula, Sentences Children Use. Cambr. Mass. 1969.

Reading Research Quarterly. Newark, Delawsare 1965 ff.

Rūķe-Draviņa, Velta, Zur Sprachentwicklung bei Kleinkindern. Lund 1963.

Sigurd, Bengt, Phonotactic Structures in Swedish. Lund 1965.

Sigurd, Bengt, Språkstruktur. Halmstad 1967.

Stauffer, R. G., Teaching Reading as a Thinking Process. New York 1969.

Söderbergh, Ragnhild, Strukturer och normer i barnspråk. (Nordisk Tidskrift 1968.)

The Genesis of Language, ed. Frank Smith and George A. Miller. Cambr. Mass. 1966.

Uldall, H. J., Speech and Writing. (Acta linguistica IV. 1944.)

Wiegand, C. F., Untersuchungen über die Bedeutung der Gestaltqualität für die Erkennung von Wörtern. (Zeitschrift für Psychologie und Physiologie der Sinnesorgane, 1907.)

Wardhaugh, Ronald, Reading: A Linguistic Perspective. New York 1969.

Zeitler, J., Tachistoskopische Untersuchungen über das Lesen. (Wundt's Philosophische Studien. Leipzig 1881—1903. Bd. XVI.)

Printed books used as reading material in the experiment dec. 1965 to dec. 1966.

Ainsworth, Ruth o. *Ridout, Ronald*, Den lilla geten. Svensk Läraretidnings förlag 1965.

— En anka på äventyr. Svensl Läraretidnings förlag 1965.

— Lek med mig. Svensk Läraretidnings förlag 1965.

— Rullbandet. Svensk Läraretidnings förlag 1965.

Baker, Marybob o. *Miller, J. P.*, Det snälla lejonet. FIB 1965.

Beim, Jerrold o. *Källström, Ylva*, Bollen som kom bort. Rabén o. Sjögren 1965.

Fujikawa, Gyo, Djurens barn. Illustrationsförlaget 1964.

Heilbroner, Joan o. *Chalmers, Mary*, Mamma fyller år. Illustrationsförlaget 1962.

Higgins, Don, Jag är en flicka. FIB 1966.

— Jag är en pojke. FIB 1966.

Hughes, Shirley, Lisas och Toms dag. Berghs 1965.

Janus Hertz, Grete o. *Loe-Hongell, Veronica*, När Lisa och Lena hade röda hund. Rabén o. Sjögren 1965.

Meeks, Esther K. o. *Pekarsky, Mel*, Kossan Kajsa. Illustrationsförlaget 1960.

Peterson, Hans o. *Källström, Ylva*, Den nya vägen. Rabén o. Sjögren 1965.

— Det nya huset. Rabén o. Sjögren 1966.

— Gubben och kanariefågeln. Rabén o. Sjögren 1960.

Pfloog, Jan. Kattboken. FIB 1965.

Prøysen, Alf o. *Stödberg, Nils*, Byn som glömde att det var jul. Rabén o. Sjögren 1962.

Risom, Ole, Kajsa Skogsmus. FIB 1965.

— Kalle Kanin. FIB 1965.

Selsam, Millicent E. o. *Lobel, Arnold*, Fias Fjärilar. Illustrationsförlaget 1962.

Sigsgaard, Jens o. *Ungermann, Arne*, Katinka och dockvagnen. Rabén o. Sjögren 1965.