ABSTRACT.


In contrast to earlier research of learning to read and write, the present study of eleven pre-school children’s early attempts to learn to read and write is presented in a socio-interactionistic perspective where reading and writing are considered to be language activities based on the dynamic linguistic sign.

It is found that the children’s conception of reading and writing varies considerably over time, but where later forms have their origin in earlier existing more rudimentary forms. The main developmental phases are described as a U-curve trend with respect to the following four aspects (> = “which appears before”):

<table>
<thead>
<tr>
<th>Practice</th>
<th>Theory</th>
<th>Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective reading</td>
<td>&gt;</td>
<td>Grammatical writing</td>
</tr>
<tr>
<td>and/or writing</td>
<td>&gt;</td>
<td>Grammatical reading</td>
</tr>
<tr>
<td>(non-grammatical or restricted)</td>
<td>&gt;</td>
<td>Effective writing</td>
</tr>
<tr>
<td>Solitary work</td>
<td>&gt;</td>
<td>Interactive work</td>
</tr>
<tr>
<td>Complex texts</td>
<td>&gt;</td>
<td>Simple texts</td>
</tr>
<tr>
<td>Complex texts</td>
<td>&gt;</td>
<td>Complex texts</td>
</tr>
</tbody>
</table>

It is furthermore shown that reading and writing difficulties may arise as a consequence of the sole use of what here has been defined as traditional reading and writing programs, because required pre-knowledge in order to be able to participate in such programs concerns aspects that the programs are supposed to teach. It is argued that children like those in the study are favoured by these programs, since they are acquainted with several of these aspects already when they start school. The learning of written language by these children is also shown to be very similar to the learning of spoken language.

The pedagogical implication of the study is that reading and writing should be taught within a functional setting based on each and every child’s world of meaning, where languageing is the prime mover and where a variety of techniques, but primarily the grammatical one, are used as effective supports when languageing goes wrong.

Key word: early literacy, written language, reading, writing, conception of reading and writing, grammatical perspective, metalinguistic awareness, conversational analysis, interaction.
ACKNOWLEDGEMENTS.

The main theme of the thesis is that language interaction is the foundation of learning language and learning about language. I wish to give my warmest thanks to those who have helped me to keep the interaction alive during my studies in linguistics:

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time and resources to put the finishing touches to it all.

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The families that have participated in the study. Their observations, which are the core of the thesis, have been an invaluable source of insight and inspiration to me.

My family. It was the questions and statements made by our children, Anna and Olle, which in the first place opened my eyes to the power of language interaction as a most important factor in learning about life and more specifically about reading and writing, and which inspired me to let the thesis take the course it did. A special thanks goes to my husband, Björn, with his enormous ability to turn the world upside down through his highly imaginative way of using and playing with language. His languageing has created a stimulating language sea for children to dive in.

The thesis is dedicated to the memory of my parents
Anna-Lisa and Nils Liberg
who always had time to listen to and to talk to their six children.

Uppsala, August 1990

Caroline Liberg
1. INTRODUCTION.

The ability to read and write is of decisive importance in most modern societies. In a world where written language is becoming more and more preponderant in our ways of communicating, the ability to read and write divides people into those that share the freedom of written language and those that have to be dependent on others to take part in written communication. The possibility to learn to read and write is part of our human rights. But as a consequence of this growing importance of spreading the ability to read and write, there has been an increasing production of methods for teaching reading and writing. The teacher might very easily run into problems when he makes himself acquainted with the different types of methods and the debate concerning the teaching of reading and writing. In view of the abundance of methods and arguments in defense of different methods, it is difficult to see the forest for the trees. The methods and arguments are in many parts full of contradictions and obscurities.

I found myself in this kind of frustrating situation in the mid-seventies, while working with remedial education. When I realized that my teacher training had not given me knowledge enough to tackle this kind of choice in a responsible manner, the solution became studies in linguistics. The choice fell on linguistics, because I was firmly convinced that learning to read and write is the learning of written language and linguistics is the study of the structure and function of different types of languages. One of the outcomes of my studies in linguistics is this thesis.

The aim of the thesis, therefore, is to get a better understanding of what reading and writing are. First a presentation, a discussion and an evaluation of earlier research concerning learning to read and write will be presented in Section One. In opposition to the traditional way of studying reading and writing a close examination from different perspectives of the way pre-school children learn to read and write both on their own and in interaction with their parents will be made. This description is found in Section Two. In the light of what has been found within this examination a further discussion of what reading and writing are will be undertaken in Section Three. Furthermore the main features of traditional reading and writing methods will be
evaluated, and their inbuilt hindrances to learning to read and write will be highlighted. It will also be argued that some children are favoured by these methods. Moreover the reasons why learning spoken language and learning written language are similar activities will be examined. Section Three will be finished with suggestions for a language pedagogy arising from the discussions in the earlier chapters.

SECTION ONE. EARLIER RESEARCH.

The phenomenon of early reading and writing, i.e. the first steps towards becoming a full-fledged reader and writer, has been explored from many different angles within many different scientific disciplines: pedagogy, psychology, sociology, anthropology, neurology, and linguistics. In studying a certain phenomenon, each branch of science has inherent in its methodology and its base of knowledge both possibilities and limitations. Each discipline rests on certain presuppositions. Therefore what is claimed to be known about a certain phenomenon is dependent on the angle of approach and the questions raised.

The review and discussion in this thesis will be primarily concerned with research into reading and writing as language activities, i.e. research that has looked at the phenomenon from a linguistic perspective. The main areas to be penetrated here are research concerned with metalinguistic ability and research in the field of early literacy. But in order to get a more complete picture of the questions and answers within these fields a brief summary of traditional pedagogical and psychological research related to early reading and writing will also be included. After a short presentation of studies within these areas, the views of reading and writing and of the act of learning to read and write present in the works will be discussed. The research will be criticized for its narrow view of reading and writing.
2. PRESENTATION OF EARLIER RESEARCH.

TRADITIONAL PEDAGOGICAL AND PSYCHOLOGICAL RESEARCH.

There are at least four different domains of research related to early reading and writing that can be considered. The areas and the questions raised in them can be seen in Table 1.

Table 1.
The main questions put forward in pedagogical and psychological research.

<table>
<thead>
<tr>
<th>Reading methods:</th>
<th>&quot;How is reading best taught?&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading processes:</td>
<td>&quot;How does the reader process a text?&quot;</td>
</tr>
<tr>
<td>Reading strategies:</td>
<td>&quot;What strategies does the reader use?&quot;</td>
</tr>
<tr>
<td>Spelling:</td>
<td>&quot;What should a well formed writing system look like?&quot;</td>
</tr>
</tbody>
</table>

The first characteristic feature of traditional pedagogical and psychological research is that the main interest is in reading, while writing is more or less ignored. More specifically the interest is concentrated on the process of reading, i.e. how reading is performed by the individual. Secondly, although the questions are given opposed answers, they are nevertheless in agreement with each other when considered in relation to the four domains (see Table 2). But the state of the art today is that a compromise has dissolved the earlier existing dichotomy in all four areas.

The answers within the different areas are interrelated. They all rest on, firstly, the idea that reading is equal to a perception process, and secondly on the Aristotelian view that writing is a representation of speech. The relationship between speech and writing is, for example, described as phonographic translation by Haas (1970, pp 7-9). The main incentive for choosing sides within the dichotomy in the discussion of methods, strategies, and spelling is thus the understanding of the form of the reading process. Under the influence of Chomsky's theory of language, both sides assume the reading process to be a process of a mental representation of a grammatical description of language. The grammatical description preferred is usually some modified variant of generative transformational grammar. The bottom-up, top-down, and interactive models of the reading process differ with regard to the manner the grammatical model is used, i.e. how the grammatical structure of the text is processed by the reader.

Table 2.
Summary of answers in pedagogical and psychological research.

<table>
<thead>
<tr>
<th>Reading method:</th>
<th>The dichotomy</th>
<th>The compromise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading process:</td>
<td>bottom-up</td>
<td>combination</td>
</tr>
<tr>
<td>Reading strategy:</td>
<td>phonological recoding</td>
<td>interaction</td>
</tr>
<tr>
<td>Spelling:</td>
<td>phonemic principle</td>
<td>flexibility</td>
</tr>
<tr>
<td>other principles, e.g. morphemic principle</td>
<td>combination</td>
<td></td>
</tr>
</tbody>
</table>

The bottom-up process is an inductive process. The reader is assumed to treat the text in a serial manner, letter by letter in a strict left to right direction. The letters are translated within the phonetic component to sounds, which are brought together in the phonological and morphological components to words. A string of words is the input to the syntactic component. The last instances are the semantic component and in some models the pragmatic component. By means of these two last components the meaning of the written text is arrived at.

The top-down process is on the other hand a hypothetical-deductive process. K. Goodman, who is a proponent of the top-down model, describes reading in the following way:

1For a presentation of research in this area see e.g. Dallmann et al, 1974; Harris & Sipay, 1975; Lindell, 1980; Malmquist, 1973.
2For a presentation of research in this area see e.g. Edfeldt, 1982; Ehri & Wilce, 1985; Gibson & Levin, 1975; Lundberg, 1981; Wildman & Kling, 1978/79; Wright, 1980.
3For a presentation of research in this area see e.g. Barron, 1985; Bryant & Bradley, 1983; Foss & Hakes, 1978; Henderson, 1980; Jorm & Shar, 1983; Masonheimer et al, 1984.
4For a presentation of research in this area see e.g. Fishman, 1977; Liberg, 1985.

5The morphological component is excluded in many models, since the models follow the generative description of English, which is a language with a very light morphological burden.
Reading is a selective process. It involves partial use of available minimal language cues selected from perceptual input on the basis of the reader expectations. As this partial information is processed, tentative decisions are made to be confirmed, rejected or refined as reading progress. More simply stated, reading is a psycholinguistic guessing game. (Goodman, 1982a, pp 33-34)

The interactive model is a combination of the bottom-up model and the top-down model. The different grammatical components are assumed to interact with one another. The reader uses the top-down process when possible in order to reduce the work in the bottom-up process. He is assumed to be flexible in his reading and able to change strategy if necessary.

METALINGUISTIC RESEARCH.

Within the metalinguistic research field are to be found primarily psycholinguists and psychologists. The main purpose of their research in this area is to find a valid and reliable predictor of success in learning to read. The writing system is assumed by these research workers to be the content of early learning to read. In the same way as in the pedagogical and the psychological research presented above, the writing system is supposed to be a representation of speech. The hypothesis put forward and tested in different experimental designs is the following: if the child is able to objectify his own language use and examine it in accordance with the phonological component of his internal grammar of speech, he is also able to understand the writing system, since this is a representation of speech. In metalinguistic tests, children are asked to participate in activities in which the most frequent and crucial questions are of the following type:

Which/How many sounds are there in the word 'sun'?
Which sound comes after/before /i:/ in 'police'?
What does /s-0-n/ become?

Within different types of test designs a high positive correlation is found between pre-school performance on metalinguistic tests and scores on reading and spelling tests carried out when the child has started school. The interpretation given to the results is that children who are aware of the phonological component of their internal grammar are those who will best manage the metalinguistic tests and, following this, profit most from reading and spelling instruction in school. These children are said to be phonemically aware.

In most of the tests, a quantitative analysing technique is utilized. Some research workers, though, have developed a more qualitative analysing technique of the responses. When the qualitative technique is used it is found that the responses of pre-school children differ in a systematic way from the responses given by school children. The former give more phonetically related responses, while the latter give responses in accordance with conventional spelling (Ehri, 1984, 1985). An analogous development is the child’s conception of the unit ‘word’, which is found to change during the first year in school. It becomes more and more in accordance with the conception of the ‘word’ as highlighted in the writing system (Valtin, 1984 a, pp 218-226).

The results of the qualitative analysing technique have led to some controversies within the metalinguistic research field. The first controversy concerns the form of the representation of the internal grammar of spoken language. The alternatives discussed are a phonetic, a phonemic, and a whole-word representation of speech. A solution to the controversy is, though, that the internal representation changes over time, in analogy with the child’s reading and spelling. The second controversy concerns the direction of the correlation between so-called phonemic awareness and reading ability. The question here is whether phonemic awareness is a prerequisite for or a consequence of learning to read.

Another type of metacognitive factor which is found to correlate strongly with obtained reading and writing ability after school is commenced, is the pre-school child’s conception of the reading and writing...
processes, and of the usefulness of reading and writing, the "How?" and "Why?" of reading and writing, i.e. a so-called "task awareness" factor. In studies where this factor has been investigated, it is shown that children who already in their pre-school years are able to answer these questions more or less in the fashion they would be answered by a developed reader and writer are also the children who have the best success in learning to read and write.9

EARLY LITERACY.

While metalinguistic research is the study of a behaviour believed to be a decisive factor in learning to read and write and is carried out in experimental or test situations, research within the field of early literacy involves actual reading and writing behaviour. The studies are often carried out in "naturalistic" settings, i.e. settings in which reading and writing occur in daily life. Research workers from many different disciplines participate in this angle of approach: educationalists, psychologists, linguists, anthropologists, and sociologists. The interest in these aspects of learning to read and write has increased considerably during the last years.

A prominent feature in this research is the view that spoken language and written language occur together and support each other, i.e. the interrelatedness of language activities10. The development of reading and writing is described as analogous to the development of spoken language11. Goodman (1983) suggests that the processing of written language is similar to the processing of oral language and puts the question:

Have we so confused literacy development with schooling that we have ignored what children learn about written language prior to formal instruction? (ibid. p 69).

Two different main purposes are found in the studies. The first one involves the inquiry into the child’s way of "breaking the code", and into reading and writing behaviours that precede and follow this step.

The second purpose is to investigate what kind of factors in the child’s condition of life contribute to a successful learning of reading and writing.

Studies concerned with reading and writing development show that children are able to start their reading and writing career as early as in their second year of life with prephonetic reading and writing, ending up "breaking the code" in their third, fourth or fifth year12. Goodman (1986) holds that the beginning of reading and writing occurs in individuals when they develop the awareness that written language makes sense. She describes the roots of literacy as consisting of, first, development of print awareness in situational contexts, second, development of print awareness in connected discourse, third, development of the functions and forms of writing, fourth, the use of oral language to talk about written language, and fifth, metacognitive and metalinguistic awareness about written language.

In a retrospective study by Clark (1976, pp 19-56, 101) it is shown that, as far as performed tests could show, early readers are not more exceptional in any special aspect, social or cognitive, than any other group of comparable children. But Söderbergh (1986, p 659) points to the circumstance that the child’s spoken language and sensitivity to structural aspects of language seem to profit from their early acquired reading ability. In the same vein Andersson (1976, pp 5-6; 1981, pp 31-45) recommends early reading as a way of maintaining a bilingual child’s two languages on equal terms. Furthermore Clark (1976, pp 51-52; 1984, p 124) finds in her study that no special method is the prime one, though impressive results have been obtained with G. Doman’s (1986, pp 109-140) whole-word approach in other studies. Söderbergh (1976b, 1981, 1985) has for instance shown that deaf and hearing-impaired children seem to profit considerably from this method.

The main phases recognized and described in the development are firstly the step from prephonetic reading and writing to phonetic reading and writing, and secondly phonetic reading and writing to elaborated reading and writing. In opposition to traditional pedagogical and psychological research and to metalinguistic research the phenomenon of writing is described and discussed in many more studies than is reading.

9Dahlgren & Olsson, 1985; Downing, 1984; Francis, 1982; Reid, 1966.
10For a discussion of the topic see e.g. Clay, 1980, 1983.
Retelling a well-known children's book, while the child behaves as if he is actually reading the book, and recognizing emotionally intense words as whole-words, are described as prephonetic reading\textsuperscript{13}. The transition from prephonetic reading to phonetic reading is described in detail for one child by Söderbergh (1971, pp 32-106; 1986, pp 651-654) as passing from whole-word reading to morphematic reading to syllabic reading to graphematic reading. The last stage is considered to imply that the child has broken the alphabetic code. When the child has reached this point, he is able to read words he has never seen before, although words he already "knows" in his language are more easily read. The move from phonetic reading to elaborated reading, where the child is able to read different types of more extensive texts, is for many of the described children very rapid.

Behaviours classified as prephonetic writing are drawing, doodling and writing of graphemes more or less similar to letters or numbers. It is described by Ferreiro (1983) as

... behaviors ... considered not as a kind of masquerade of an adult activity, but as indicators of internal activities through which the organization of the object of knowledge is taking place. (ibid. p 278)


... that the written signs [early prephonetic writing; author's note] are entirely first-order symbols ... directly denoting objects or actions, and the child has yet to reach second-order symbolism, which involves the creation of written signs for the spoken symbols of the words. For this the child must make a basic discovery - namely that one can draw not only things but also speech. (1983, pp 288 - 289)

Their conclusions are in accordance with the conclusions of Luria (1983) and Vygotsky (1983) that writing develops from a form of drawing.

\textsuperscript{13}See e.g. Bissex, 1980, pp 119-120; Söderbergh, 1986, p 647.

This means that

Contrary to popular belief, writing may not begin as speech written down. The differentiation of writing from drawing and its precise connection with language is not necessarily a step preceding, but a gradual process occurring during and through first attempts to represent experience through letter graphics. (Dyson, 1982, p 379)

The ways in which children combine writing and drawing are several in the early phases. Dyson (1982, pp 365-366) describes the following\textsuperscript{14}:

- drawing and writing are intermingled on the page; they are not related thematically (60)
- drawing and writing contribute (roughly) equally to the complete product (15)
- writing serves as a label for at least part of the drawn graphics (14)
- writing is part of the drawn graphics (6)
- drawing provides the meaningful context for the writing (1)

The functions that the prephonetic writing could fill was studied by Dyson (1983, pp 11-12). She describes the following\textsuperscript{15}:

- to produce conventional symbols (e.g. the alphabet) (18)
- to label or to provide a caption for objects, persons or events (17)
- to write (14)
- to produce a message (10)
- to produce a particular written product (typically a letter) without concern for a particular message (7)
- to express or dramatize feelings of self or others (6)
- to detail or accurately represent a drawn object (5)
- to communicate a particular message to a particular audience (5)
- to investigate the relationship between oral and written language without concern for a particular referent (3)
- to organize and record information (2)

The writing event may, according to Dyson's description (ibid. p 9-16), consist of either just a mechanical formation or a mechanical formation combined with one or all of the following components: message formulation, message encoding, and message decoding.

\textsuperscript{14}The number in parenthesis refer to number of graphic episodes. Total number of episodes analyzed were 96. The study included 22 child-participants.

\textsuperscript{15}The number in parenthesis refer to the number of children who were engaged in the different types of writing. The study included 22 child-participants.
Ferreiro & Teberosky (1982, pp 178-204) in their study\(^{16}\) were able to identify different developmental levels in the child's prephonetic writing. The first level is characterized as the writing of wavy lines or linearly ordered series of graphemes similar to letters or numbers, where the writing consists of few systematic variations in the number of graphemes used. The variation that occurs depends primarily on the quantifiable differences among what is referred to, e.g. 'elephant', when contrasted with 'butterfly', may be written with more letters since it is a bigger animal. The second level is in contrast characterized by the conviction of the child that there must be variation in the written text, i.e. the text must be written with different letters, in order for it to be readable. The next level is when the child starts to write one grapheme for each syllable. At first the grapheme is chosen arbitrarily, but later on the grapheme chosen has a phonetic correspondence to the syllable. At this point the child has reached the point of phonetic writing, which at first is a sort of heavily reduced phonetic spelling\(^{17}\).

The child's phonetic writing consists of very short texts, not uncommonly just a few words. From a textual point of view it is characterized as talk written down\(^{18}\), which implies that it lacks features characteristic of so-called "decontextualized" language.

\textit{They [the children; author's note] discover significant uses for writing by building bridges from the familiar activities of speaking, drawing, and playing to the new activities that writing makes possible. Children write to name and organize parts of their worlds, to capture and savor their experiences, to tell stories, to try out voices and roles, to fulfill family and school responsibilities, to communicate messages to readers near and far, and to make lists that will help them to remember what they have to do. (Gundlach, 1982, p 145)}

Thus, the early writings fulfill many different functions and many genres are at work. However, different genres are found to develop differently for different children. It depends on for example the child's interest (Clay, 1975), the pedagogy at work (Clay, 1983, pp 264-265, 269-271), the child's proficiency in recounting (e.g. stories) (Britton, 1983, p 18), and the type of language required in certain genres (Collerson, 1983, p 73). Graves (1975) characterizes the early writing process as "... as variable and unique as the individual's personality." (ibid. p 237).

A shared characteristic of all reported cases of early literacy is the stimulating language milieu the child is brought up in, where there are abundant occasions for everyday language interaction. They are milieus in which the child is given opportunities to discover when, how and why written language is used\(^{19}\). These observations have encouraged an intensified attention to the factor of the child's language milieu, this being the second research line within the field of early literacy. Snow & Ninio (1986, pp 121-137) have for example shown that already the first reading sessions the child participates in, in some cases before he even has become one year old, may help him to understand how to handle a book, how to understand pictures in picture-books, how to relate what is read to his own life, and so forth. Jacob (1984), furthermore, has shown how different play activities give opportunities to practise and elaborate literacy skills e.g., the children "pretend to construct and use shopping lists, buy goods with food stamps, and get prescriptions from a doctor." (ibid. p 82).

A prime concern in many studies is to uncover the child's opportunity to actively take part in situations where so-called "decontextualized" language is used, since this type of language is considered to be a fundamental trait of written language. Another term used by Scollon & Scollon (1981, pp 69-71, 79-80) for this phenomenon is "the fictionalization of the self as author, audience, and character". Features characteristic of "decontextualized" language are: distance between sender and receiver, fictionalization of sender and of receiver, explicitness of reference, complexity of syntactic structures, permanency of information, autonomous establishment of truth, and high degree of cohesion (Snow, 1983, p 186).

Situations studied and described, where "decontextualized" language is used, consist in most cases of parents' or teachers' reading to the child and conversations around topics arising from the book\(^{20}\). For

\(^{16}\)This is also presented in Ferreiro, 1983, pp 286-289.


\(^{18}\)See e.g. Goes & Martlew, 1983; Gundlach, 1982; Hildyard & Hidi, 1985; Kamler & Kilarr, 1983.


\(^{20}\)See e.g. Cochran-Smith, 1984, 1985; Heath & Branscombe, 1986; Snow & Ninio, 1986; Taylor, 1986; see also Teale, 1984, for a review and discussion of research undertaken in this area.
example, Flood (1977) concludes her report on parental styles in the following way:

At this point it seems almost axiomatic to say “the book won’t teach the child to read”. Children need to be involved in the story from beginning to end; they need to interact with the reader - their parent - to extend ideas, to question their own understanding, and to relate their ideas to experience. (ibid. p 867)

In some cases conversations, without book-reading, about topics not concerned with the immediate situation, i.e. situations which demand the use of “decontextualized” language, have been studied21. Simons & Murphy (1986, p 201) also show, among other things, that the ability to suppress “situation-dependent” language when it is not appropriate is related to the development of reading skill. Other aspects of the “written language milieu” examined are the child’s access to reading and writing material, exposure to print in environmental settings, frequency of visits to the library, amount of daily activities mediated by reading and/or writing, parents’ attitude toward reading and writing, and so forth22.

Studies looking at social and cultural differences regarding these factors find in many cases critical divergences. The main results from these studies are that reading and writing behaviour differ between different cultures23. Traits considered to be characteristic of a stimulating “written language milieu” are found in different social classes24, but they are in many instances more numerous and more frequently occurring in higher social classes than in lower25.

Although a striking unanimity is found between studies describing developmental trends and studies describing the “written language milieu”, a dividing line is found with regard to the researchers’ opinion concerning the adult’s role in the learning act. Many of the studies presented above, especially those discussing developmental trends or specific stages in the development, have only observed the child’s manipulation of the writing system on his own. That is, they have not at all considered the “adult-factor”. But those who have taken this factor into consideration put more or less emphasis on it, dependent on their focus of attention in the study.

Those who make less strong claims hold that written language primarily is learned by the child through his interaction with print and his discovery of a relationship between the written and the spoken code. Söderbergh (1986, pp 646-658) suggests that grammatical aspects (phonological, graphematic, morphological, and syntactic structure) are learned subjectively, by the child’s own analytical, explorative, and self-directed work, while aspects such as pragmatics and the vocabulary of here-and-now contentives are learned intersubjectively, mediated in interaction. Goodman & Goodman (1979), who among others use the term “natural learning”, clarify their position in the following way:

... when we use the term natural learning, we do not regard the process as an unfolding in an environment free of obstructive instructions. Teaching children to read is not putting them in a garden of print and leaving them unmolested. (ibid. p 139)

Teale (1982) who also makes use of the term “natural” makes a somewhat stronger claim in stating that:

When the child learns to read and write in the course of everyday events, he or she internalizes a coordinated set of actions which involve using a particular technology in certain settings to achieve particular goals. The source for this whole process lies not in the individual as ... certain constructivist-oriented accounts imply, but in the mutually constructed interactions of individual and functioning social world. (ibid. p 566)

A much stronger stand is found in Thomas’ (1985) retrospective study of early readers. Thomas holds that terms such as “natural readers” and “natural literacy” tend to distort the ownership of efforts involved. She states that:

... it is both an oversimplification and an injustice to the parents in the study to suggest that reading acquisition was the sole and natural act of the child. Indeed the time, the social interaction, the clarification of linguistic/literacy factors, and the systematic

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21See e.g. Heath, 1986; Sulzby, 1986.
24See e.g. Anderson & Stokes, 1984; Goodman, 1986; Miller, Nemoianu & Dejong, 1986; Teale, 1986.
25See e.g. McCormick & Mason, 1986; Simons & Murphy, 1986; Wells, 1985.
approach to print engaged in by these parents of early readers would be called exemplary teaching if done in the classroom by teachers who turned out such successful beginning readers. (ibid. p 473)

Inspiration to her study and support for the claims Thomas put forward is among others Snow’s study (1983), which is one of the few studies that in a micro-perspective shows the social interaction in literacy learning. It describes how a boy and his mother interact while trying to write the boy’s name. In this study it is shown how the parent by the use of the following different types of strategies:

* semantic contingency (adult’s continuing topics introduced by the child),
* scaffolding (reduction of uncertainty), and
* accountability (adult’s requiring task completion)

helps the child to bring the task to an end.

The study to be presented in this thesis will describe both the interaction the child takes part in and the child’s manner of using written language. But before presenting this study a discussion and an evaluation of the scientific framing of the questions put forward and answered in previously presented research will be made.

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26See also Liberg, 1988, 1990a and 1990b.

3. DISCUSSION AND EVALUATION OF ANSWERS PUT FORWARD BY EARLIER RESEARCH.

**THE VIEW OF READING AND WRITING INHERENT IN THE STUDIES.**

The statistical-experimental paradigm, which dominates traditional pedagogical and psychological research as well as metalinguistic research, assumes that a phenomenon is reducible to its component parts (Harste et al., 1984, pp 87-88). The phenomenon to be studied is assumed to be fixed and ready outside the description. It consists of a closed system of entities which work upon each other. As such, it is possible to uncover. The task is to make hypotheses about what entities are at work, and to describe the verified entities and the relationships that hold between them. It is assumed, furthermore, that each entity can be studied in isolation in order for the researcher to find out how it really works. Models and descriptions, built on these assumptions, make claims to giving an absolute picture of the phenomenon. The models are, furthermore, assumed to possess an inherent ability to explain the rise and the fall of state of affairs within the system.

In this way, reading and writing are assumed to consist of different ability components. The component assumed to be of prime concern within this type of reading and writing research is the ability to manipulate the alphabetic writing system. Traditional pedagogical and psychological research has primarily investigated hypothesized components of the ability to process the writing system. The stress has been placed on the outline of the process. Metalinguistic research tries on the other hand to tap the child’s assumed awareness of the structural equivalents of writing in speech, i.e. phonemic awareness. The child’s ability to translate spoken symbols into written symbols, and vice versa is investigated.

A problem encountered by such a view of reading and writing is the fact that different types of experimental methods lead to different descriptions of the assumed components. Furthermore, the research gets caught up in the many different factors which are supposed to be more or less closely related to the studied phenomenon. This often leads to...
intra-scientific controversies concerning the interpretation of the descriptions and supposed relations. The validity of investigations is in this way questioned. Not seldom, the controversies move the focus of attention from discussion of the theoretical assumptions made, i.e. "What are we studying?", to intensified work with designing more and more advanced experiments, i.e. "How are we studying?", in order to prove the beliefs held by the investigator. The research then changes from being a scientific discussion to becoming a technical discussion or an ideological discussion. The controversies within the metalinguistic research field mentioned above are of this kind. Solutions to the problems, given within the paradigm, are either to change experimental technique or to change scientific point of view.

Another cause of the controversies found within metalinguistic research, also inherent in the statistical-experimental methodology, is the above presented difference in analyzing technique. A purely statistical approach, like the one commonly used in the investigations, forces the investigator to make quantitative judgements of given responses, and leaves no room for any extended qualitative judgements. When confronted with such qualitative studies, studies based on purely quantitative judgements become less convincing.

In contrast to the statistical-experimental paradigm stand the methodologies most commonly used in the field of early literacy, because according to these the phenomenon is observed as it occurs in daily life. They are called the observation methodology and the participation-observation methodology. However, the first type of methodology shares the individual-psychological perspective with the statistical-experimental paradigm. That is, the individual and his presumed psychological states are put at the centre of the study. Diametrically opposite with regard to this aspect, the participation-observation methodology rests on a theoretical assumption that the phenomenon to be studied is complex where all aspects of the situation, including the researcher and his assumptions, are irreducible. It is not possible for the observer to lift himself by the hair and look at the situation from the outside. All aspects of the situation are integral parts of the phenomenon that is to be described. (Harste et al, 1984, pp 87-90). This is an approach increasingly favoured and advocated in the study of language use.

The view of reading and writing inherent in the observation methodology agrees to a large extent with the view found within the statistical-experimental paradigm. A difference, however, is that in the observational studies, it is not only the child's manipulation of the writing system that is of central concern, but also other aspects of written language. The view of reading and writing inherent in the participation-observation methodology is, on the other hand, that language or language use is a social phenomenon, a non-delimitative and irreducible whole. The unique language moment is impossible to retain. Reading and writing are assumed to be language events that are instances of such language use.

But, as will be obvious from the discussion below, studies carried out within the different methodologies more or less explicitly adhere to the view of reading and writing inherent in the paradigm. It is possible to identify a departure from studies, very much influenced by the traditional perspective dominating the statistical-experimental paradigm, to studies more true to the perspective displayed in the participation-observation methodology.

The language activity discussed or observed above all in previous work on early literacy is, as in traditional reading and writing research and metalinguistic research, the manipulation of the writing system. One of the main topics is the child's way of manipulating the writing system in blending together and in spelling. In later works on early literacy other language aspects have been discussed. But, since it is actual spelling, reading, and writing situations, which are observed with the help of audio- or videotaping, or extensive field notes, that are studied, new aspects of the activities can be considered over and over again. The data material can, thus, be analysed from new angles of approach, as far as the observation technique allows. In each analysis a new point of view can be chosen. The participants can even be used as informants.

The concentration on the writing system in both metalinguistic and early literacy research is an inheritance from earlier discussions in pedagogical and psychological research. It is also a consequence of the fact that the writing system is the most recognizable aspect of written

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28The descriptions of language use are provided with a new and very informative dimension, when the participant-as-informant technique is used (Tannen, 1984, pp 37-40).
language, since it is the visual aspect of written language. But above all it is a consequence of the traditional view that writing is the representation of speech. Speech is in this perspective regarded as the primary language form to which writing is subordinated\textsuperscript{29}. The specific trait of reading and writing in comparison with speech is thus the studied object: the writing system. ‘Speech’ and ‘writing’ may be called “pivot concepts” within most of the studies presented above, since they have been given such a priority. In order to find out in what respect the concepts ‘speech’ and ‘writing’ are meant to be of interest in learning to read and write, they will in the following be dealt with more fully.

Speech and writing may be and have been analysed and highlighted from many different angles of approach. Different research fields work with different ‘speech’ and ‘writing’ concepts. Within phonetics speech has traditionally been looked at as consisting of a linear string of phones. But within this discipline it can also be looked at from, for example, a musical point of view\textsuperscript{30}. Furthermore, within rhetoric and speech act theory speech is analysed as action. But traditionally, the most common study of speech is grammatical study. With grammatical study is here meant the studies within phonology, morphology, syntax, and traditional semantics. It is within grammatical study that the connection between speech and writing, referred to in presented research, is found. The most crucial characteristic, pointed out within research concerned with the child’s ability to use the writing system, is the segmental structure of writing, i.e. a linear row of well distinguished signs, which is supposed to be also a property of speech in the form of phones and phonemes within phonological descriptions.

In an historical perspective the grammatical science has developed from a requirement to create a correct pronunciation of sacred and other types of writings. For example, Robins (1967) states

> That the development and use of writing was the first piece of linguistic scholarship in Greece is attested by the history of the word ‘grammatikós’ ...; up to and including the time of Plato and Aristotle the word meant simply one who understood the use of letters, ‘grammata’ ... could read and write, and ‘tēchnē grammatikē’ ... was the skill of reading and writing. (ibid. p 13).

\textsuperscript{29}For presentation and discussion of different assumptions according to this type of subordination see e.g. Naucler, 1980, pp 18 - 28.
\textsuperscript{30}Personal communication: prof. S. Öhman.

Since writing has been one of the most preponderant techniques for studying spoken language before the era of the phonograph and audion and videotaping, it has remained the primary object of study within linguistic research. It has had an immense importance in the study of spoken language\textsuperscript{31}, even though many prominent linguists such as H. Paul, O. Jespersen, F de Saussure, L. Bloomfield, and Ch. Hockett felt that writing should be excluded from linguistic research (Allén, 1965, pp 11-12).

Furthermore, the basis of all kinds of reflections on or studies of language as well as other phenomena, is the ability to create them by objectification. By the invention of the different writing systems that exist, “language” as an object was given a visual form, which created some ways of looking at it as a static object. This is the “language” that traditionally has been treated by grammar.

The object of study within grammatical studies has been taken from either the living written language use or transcriptions of spoken language in accordance with the principles of writing. Within phonetics and phonology rules for the pronunciation of writing have been developed. This grammatical treatment has furthermore had repercussions on spelling. Many grammarians have worked hard at making more and more of the grammatical description visible in writing systems. For example, in Sweden E. Tegner Jr. (1886, pp 31-42) argued that the morphematic principle should become one of the main principles in Swedish spelling\textsuperscript{32}. The pronunciation of writing, generated within grammatical study, has also had repercussions on the use of the living spoken language. Here the so-called “educated speech or pronunciation” is found.

These circumstances among others have had the result that many of the properties of the writing system have also been ascribed to speech. The knowledge of how to read and write, i.e. how to use writing, is in nearly every man’s possession in the Western world to a greater or lesser extent. This has influenced his way of thinking of spoken language as if it contained the properties of grammar. The influence which the alphabetic writing system has had on our way of thinking of speech is discussed by A. Lloyd James (1938) in the following way:

\textsuperscript{32}For a discussion of spelling in a historical perspective see Liberg, 1985.
Sound and sight, speech and print, eye and ear have nothing in common. The human brain has done nothing that compares in complexity with this fusion of ideas involved in linking up the two forms of language. But the result of the fusion is that once it is achieved in our early years, we are for ever after unable to think clearly, independently and surely about any one aspect of the matter. We cannot think of sounds without thinking on letters; we believe letters have sounds. We think that the printed page is a picture of what we say, and that the mysterious thing called “spelling” is sacred...

The invention of printing broadcast the printed language and gave to print a degree of authority that it has never lost. (ibid. P 29)

However, within different phonological schools different solutions have been suggested to the description of the relationship between speech and writing. The generative school claims that phonology has to be incorporated into grammar, i.e., becoming non-autonomous, in order to reach a more economical, efficient, and adequate grammatical description of speech. These claims are put forward in opposition to what it is meant to be the main character of the description put forward by the Prague school and other structuralist schools. In a generative perspective the last mentioned schools are claimed to advocate an autonomous phonology without any reference to other parts of grammar, and to argue that the analysis of speech should be characterized by the features of invariance, linearity, and biuniqueness. As a consequence, the requirements of invariance, linearity, and biuniqueness have been abandoned within the generative school. This implies that the concrete phonemic representation favoured in the structuralistic framework has been replaced by an abstract morpheme invariant representation. The degree of abstraction is dependent on how well different observed regularities in language are reflected in the rules. The technique for writing rules has been a very much debated issue within the generative framework. Many different solutions have been given. The differences depend on what kind of data have been considered to be relevant for the description. Within the generative framework writing has even been described as an optimal representation of speech, a statement which is a logical somersault, since the description of the representation of speech is heavily influenced by the traditional preoccupation of linguists with writing. A segmental description of speech has thus the writing system as its object of study.

However, it has been questioned within the Prosodic school or Firthian school that the segmental description of speech is the only possible way of analysing speech within a phonological framework. In contrast with most other phonological treatments, Firth highlights the prosodic features of speech (Firth, 1957, pp 21-22, 121-138). Firth, however, is not only in opposition to a phonematic analysis, but he sees such an analysis only as serving the purpose of justifying a broad transcription or an orthography.

Thus, an analysis made within a certain framework serves a certain purpose. A grammatical description belongs to grammar and is only able to give explanations within this conceptual frame of reference (Öhman, 1986, pp 160-166). The purpose of a grammatical description is primarily to describe and prescribe what is supposed to be a correct grammar within a national language. It is a normative description, since it excludes many different individual features and local variants. To account for changes in language use, it is readjusted over and over again.

In more general terms a grammatical treatment consists of taking a piece of language out of language use. Therefore, the object of grammatical studies cannot be called language in the usual sense, since language is by definition situated. Language comes to life only when functioning in some environment. We do not experience language in isolation - if we did we would not recognize it as language. (Halliday, 1978, p 28)

The object of grammatical studies is the static linguistic sign. A grammatical treatment is, furthermore, characterized by its treatment of the language object, the static linguistic sign, as consisting of major units (text, sentences, phrases, words) which can be analysed into minor units (sentences, phrases, words, and letters, respectively) using rules or conventions. The basic principles of a grammatical treatment and also of the alphabetic writing system are thus:

mission of cultural as well as individual meanings.” (ibid. p 51), I claim that the static linguistic sign gives too narrow a picture of what reading and writing are. To read and to write will in this thesis instead be looked at as being in language. The same goes for speaking and listening, signing, and so forth. They are all language activities or different aspects of language use. Language is a social phenomenon which is part of a semiotic interaction in which we become human. It is a collective creation and maintaining of cultural and individual meaning. In accordance with the view of reading and writing inherent in the participation-observation paradigm presented above, I claim, that language use, i.e. languageing, is ephemeral and variable.

Here the linguistic sign is dynamic and can be examined from two different angles. The first is the medium pertaining to the senses in speech, in writing, in signing, and so forth. The second is the use of the substances over time, the movement or activity. Language is form, but may appear in different substances, in different physical shapes, in different media. Thus, the distinction between spoken and written acts may not be made within a linguistic conceptual frame of reference. From a linguistic point of view, the distinction between written, spoken, and sign language has no meaning. But, in a physical/medial perspective language may be divided into spoken language, written language, sign language, and so forth. They are different substances of the same form.

Thus, two disparate linguistic signs are identified. They are a static linguistic sign and a dynamic linguistic sign. The linguistic signs may, furthermore, appear in different media. Accordingly, instead of working with two concepts: ‘speech’ and ‘writing’, in the discussion of reading and writing, I propose a distinction between four different concepts: ‘pronunciation’, ‘transcript’, ‘spoken language’, and ‘written language’. The concepts are based on the static linguistic sign and the dynamic linguistic sign, respectively (see Table 3).

Table 3.

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<th>CONCEPTUAL FRAME OF REFERENCE:</th>
<th>LINGUISTIC</th>
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<td>PHYSICAL-</td>
<td>visual:</td>
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<tr>
<td>MEDIAL</td>
<td>auditory:</td>
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The outcome of the actual use of the two types of linguistic signs is different types of language activities. Language activities based on a static linguistic sign, i.e. grammatical treatments, are the commenting upon and manipulation of the writing system. The comments and manipulations concern the units that are focused within the writing system: letter/letter sound\textsuperscript{36}, word, sentence, and text. The language activities based on a static linguistic sign are e.g. blending together, pronunciation, listening to pronunciation, sounding out, and transcribing.

Language activities based on the dynamic linguistic sign are listening, talking, reading, and writing. Reading and writing are languageing within the visual medium. Listening and talking are languageing within the auditory medium. This is an understanding of reading and writing which is in accordance with the view pointed out within research which has extended the understanding of reading and writing to incorporate other aspects than the manipulation of the writing system. Some of these research workers\textsuperscript{37} have described languageing as the creation of worlds.

The two types of language activities based on different linguistic signs consider two disparate topics. The topic of the activity: “commenting and manipulation of the writing system”, is the static linguistic sign. The activity considers rules and conventions for the visual and auditory modality of the static linguistic sign. It is an activity governed by rules. The static linguistic sign is found within a closed and normative system. The topic of “languageing within the visual medium” is on the other hand taken from the “object language”. Languageing, the dynamic linguistic sign, is ephemeral, open, and infinite.

Studies concerned with reading and writing that rest on the statement that writing is the representation of speech, make the mistake of confusing the actual spoken and written language use with the grammatical description of an ideal language. The distinction between the two linguistic signs is not recognized. Languageing within the auditory medium and pronunciation on the one hand, and languageing within the visual medium and transcription on the other hand are used without differentiation. A probable cause of the mistake is the circumstance that pronunciation and spoken language on the one hand, and transcript and written language on the other hand are carried out in the same medium, the auditory and the visual medium, respectively. The mistake has as one consequence that reading and writing have been looked at as a manipulation of the writing system: pronunciation of the writing system and transcribing, respectively.

Another conceptual confusion found in the presented research is the assumption that language, spoken, written, and so forth, has two related characters, one outer and physical character, and one internal and abstract character. Language is looked at as being mentally represented by an internal grammar. This mental hypothesis is found in studies which rest on either the assumption that writing is the representation of speech, or the assumption that speech and writing are autonomous and derived from a common abstract representation. However, research of the first category is often much more explicit about this point, than research of the second category. This means that it is mainly found in the field of metalinguistics, and within works on early literacy from an earlier date. The hypothesis is based on an individual-psycho-logical point of view, which is also a fundamental characteristic of the statistical-experimental paradigm. The object of study is the behaviour of the individual. The behaviour is furthermore interpreted and explained in terms of the individual’s psychological or mental states. Behaviour is thus regarded as consisting of two related characters, one outer and physical character, and one internal and abstract character.

In its application it is a confusion of two incompatible angles of approach, i.e. an abstract or a grammatical description of an ideal language and a neurological description of language use. In the same way as actual language use and a grammatical description are two incompatible angles of approach, so are a grammatical description and a neurological description of language use. A grammatical description, a neurological description of language use, and actual language use are carried out in three logically incompatible conceptual frames of reference. Therefore, on logical grounds, the hypothesis of the mental representation of language stands on a very insecure basis. Furthermore,
it does so for practical reasons. So far, the internal representation has only been described in very general terms, primarily in the form of some sort of simplified generative grammatical description. But this is not a satisfactory situation within a theory where so many interpretations are dependent on this description. If the “mental hypothesis” is accepted, the type of representation chosen has to be motivated. The reasons for choosing one of all the possibilities have to be spelled out.

The so-called controversy within metalinguistic research about the status of the phoneme takes place within this mental perspective. It will just be the first in a long row, since concepts such as ‘phoneme’, ‘word’, ‘sentence’, and so forth, belong to the grammatical description, which is logically incompatible with actual language use. The controversy concerned with the shape of the mental representation is parallel to the controversy found within psycholinguistic research concerned with theories of speech perception and production, which have based their theories on some sort of grammatical description.

After reviewing many investigations dealing with the status of the phoneme and the roots of phonological knowledge within the realm of metalinguistic research, Valtin (1984b) reaches the conclusion that “..the exact nature of the roots of phonemic concepts await further investigation” (ibid. p 250). Thus, Valtin calls for further experimental studies with children within the statistical-experimental paradigm. One answer to this, in accordance with what has been stated above, is that there is no need for investigations of this kind to gain a better understanding of the roots of the phonemic concept, because the concept of the phoneme arises from a grammatical analysis of the static linguistic sign. A grammatical concept such as the phoneme can never be found in a “place” outside the conceptual frame of a grammatical description.

THE VIEW OF THE ACT OF LEARNING TO READ AND WRITE INHERENT IN THE STUDIES.

In most works on early literacy, as well as in metalinguistic research, a cognitive view of learning has been dominant. The learner is seen as actively searching and assimilating knowledge in accordance with a Piagetian framework. It highlights an individual-psychological perspective on learning. The child is put at the centre of study, while the teacher is, at best recognized and regarded as one factor among others working upon the child. The pupil and the teacher are, thus, regarded as two independent entities. However, later work in the field of early literacy has highlighted the interaction between the learner and his environment. This change in view is a reflection of a growing awareness among these research workers of what a holistic approach to learning involves. As a consequence the focus of attention has increased to incorporate the total learning environment, which includes among other things many different aspects of language and not only the learning of the writing system. So far, though, not many studies of the actual interaction have been carried out in this vein. The most frequent purpose of these studies has been to describe different aspects of the “written language milieu”.

Studies within the individual-psychological and mentalistic paradigm differ on the one hand with respect to what features or units of the static linguistic sign are given most prominent place in the learning act, and on the other hand with respect to how this knowledge is assumed to relate to previously acquired knowledge. But in accordance with the view that writing is the representation of speech learning to read and write can be described as an establishment of a new channel, the channel of transcription, to the internal grammatical representation of speech, which is already formed partly through nature, partly through nurture. In the words of Piaget, new information is assimilated to an old schema which accommodates to a certain degree. Locale in the internal representation for connection is assumed to be the component of grammar which handles the basic unit of the processing system.

According to bottom-up models, the basic unit is the letter, according to top-down models, it is primarily the word, and according to interactive models, it may change when necessary during the process. The connection works in a mechanical way, translating units in the used writing system into corresponding units in the internal representation of language, and vice versa. Structures to be learned first should be simple from a grammatical perspective, i.e. few grammatical rules are needed for the translation process to occur. Accordingly, simple struc-
tures do not put a heavy burden on the translation system. When established, this channel has full access to the internal representation of speech. Thus, to learn to read and write is to create a connection and to "run in" the connection until it works smoothly and automatically. The conclusion must therefore be that both learning to read and write and to read and write in a developed manner may be said to consist of the "same" behaviour, the process of connecting the writing system to the internal representation of speech. The difference between them is that in learning to read and write the behaviour is controlled, while in developed reading and writing it is automatic.

The other main group of studies within the individual-psychological and mentalistic paradigm is found within the field of early literacy. Even though many of these studies have had their main focus on the child's manipulation of the writing system, other language aspects have been considered. In accordance with the dominating view within this category of research that spoken and written language are autonomous and derived from a common abstract representation, spoken language and written language may very well be learned in a parallel fashion. However, studies that do not take such a stand in this question are also found in this category. Learning to read and write may be described as a successive increase in the child's ability to participate in different and more advanced language activities. These acts are identified with respect to both functional and structural aspects of language. But when decisions are made concerning the order of learning, functional aspects are judged to have more weight than structural aspects. In this way it is considered that learning to read and write should start with written expressions (primarily words, but also phrases and sentences) that are meaningful to the child, i.e. expressions that are part of the child's world and fill a function in his life, expressions that are well-known to him and that occur in his immediate settings. Within this subgroup of expressions those with a more simple structure are given preference to others. However, when the child takes the lead in a reading or writing session, it is not always possible to make such a choice. Thus, learning implies that old schemes are accommodated, but primarily, many new schemes are built. In contrast with previously discussed research learning to read and write and reading and writing in a developed manner must be considered as two qualitatively distinct behaviours.

A sharp divergence between research workers in the two categories discussed above, is thus concerned with the point of time when the child is able to begin his career as a reader and writer. In accordance with a "strong" interpretation of the aspect of developmental stages in Piaget's theory, research workers within the metalinguistic field suggest that phonological awareness, being part of a more general metacognitive ability, is a new developmental stage emerging around the age of five to six. Children are supposed not to be able to learn to read and write, in the sense of this paradigm, before this age, since phonological awareness is considered as a prerequisite for learning to read and write.

For good reasons, such a view has been strongly opposed by many research workers within the field of early literacy, since they have shown that learning to read and write can start at an early age, more or less paralleling the learning of spoken language. Söderbergh (1986) even proposes that such a view has been one of the causes of the fact that ".. relatively little attention .. [has been] .. paid by reading researchers to the phenomenon of early reading .." (ibid. p 632). Furthermore she states: "The impact of Piaget is so strong that research workers may be reluctant to put their reputation and their chances of promotion at stake by devoting themselves to this kind of research work." (ibid. p 632).

A third category of studies highlight, on the other hand, the interaction between the learner and his environment as one of the most prominent factors in learning written language. The individual-psychological perspective is fading away in this category, leaving place for a sociological perspective. It is as member of a society, in which written languageing is one way of creating and maintaining meaning, that the child is supposed to reach a point where he wants to be part of this type of meaning-creation and meaning-maintaining. The child participates in a certain critical socializing context where he is given an opportunity to behave in the same way as members of an older generation in the society. The third category thus consists of the idea that learning to read and write is the learning of a dynamic linguistic sign in interaction with other readers and writers in order to create and maintain cultural and individual meaning. It is in this vein that learning of reading and

writing will be looked at in this thesis. Such a socio-interactionistic perspective is in accordance with the prime purpose of this thesis, which is to answer the question “How do we teach reading and writing the best way?” The question concerns a pedagogical situation, where an already educated person will lead an uneducated person into the holy room of the consecrated readers and writers. The situation described is not an affair of an individual action but a social interaction. The individual-psychological perspective, thus fails to account for one of the prime characteristics of the pedagogical situation. Furthermore, the moment reading and writing in the individual-psychological perspective are converted into a mental or neuro-physiological act, the teacher has to leave in order to give way to the neurologist. Thus, the type of answers advanced within the individual-psychological perspective do not provide any ground for explanation within the pedagogical situation. Instead of being operationalized as knowledge of how to read and write consisting of different individual-psychological states the knowledge will, in this thesis, be operationalized as being an ability to participate in different types of languageing within written language.

CONCLUDING REMARKS.

In this discussion two dimensions have been of vital importance to the understanding of differences and similarities between studies. They have been on the one hand the type of linguistic sign used, and on the other hand the way of looking at the act of learning to read and write and reading and writing as such, as individual acts or as social acts. In Table 4 a summary of these aspects and the view of reading and writing according to the three categories discussed above are displayed. Different studies with different directions place themselves on a continuum from the first category to the second category, and further on to the third category of research. Breaks in the continuum are results of the fact that the different concepts within the two dimensions belong to different conceptual frames of reference which are not related. That is, it is not possible to adhere to both concepts within each of the dimensions. Nevertheless, studies are found which do have a lot in common with a conceptual frame of reference, but which have not taken the step in full, i.e. they are on their way to changing their conceptual frame of reference.

Thus, different research fields express different understandings of reading and writing and of how reading and writing are learned. These understandings are children of their time. The state of the art today is in favour of a broader understanding of the phenomena reading and writing than is possible to find in earlier works. We are now experiencing a paradigm shift. The paradigm shift concerns both the design of the study and the understanding of language. This type of paradigm shift is also found within other types of studies of language use.

In accordance with the broader view is the view advanced in this thesis, that reading and writing are languageing, which is ephemeral and variable. This point of view implies that it is only possible to create a picture of the studied phenomenon. The picture is furthermore created by the observer, his way of reminding himself of the phenomenon, which is controlled by the perspective the observer is using. In other words there is no unbiased and universal picture, inherent in the phenomenon, to uncover. Therefore, the created picture shall be considered as contestable. To answer the question of what reading and writing are is to take a look into the ephemeral and variable, i.e. the practice of life, from a certain point of view and try to create some pictures. It is like collecting and arranging pictures in an album. Different scientific disci-

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<thead>
<tr>
<th>A static linguistic sign</th>
<th>An individual-psychological perspective</th>
<th>A socio-interactionistic perspective</th>
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<tbody>
<tr>
<td>writing is the</td>
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<tr>
<td>representation of speech</td>
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<td>writing and speech</td>
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<td>are autonomous</td>
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Table 4.
A display of the dimensions between which different studies are spread.
plines collect and arrange different albums, i.e. different answers are
given.
In order to be applicable and to serve a didactic purpose the different
albums and the pictures in them have to be displayed and evaluated in
relation to each other, and in relation to the purposes of teaching to
read and write demanded by society. Negotiations have to be carried
out in order to decide what will be considered as reading and writing.
Sometimes this work results in a great battle and even a paradigm
shift. A more polished form of behaviour is to accommodate to the ex­
isting and traditional view and transmit it to the next generation with­
in research. This is what has been the case to a large extent during the
last hundred years of research concerned with reading and writing.
The aim of the next section is to bring together and arrange some
pictures of reading and writing in a linguistic album. The album will
consist of pictures from some early attempts of pre-school children to
take part in the literate society. Pictures having something in common
with each other will be gathered in groups in order to lay the ground
for some generalizations about these children’s first steps in becoming
readers and writers.
SECTION TWO.
SOME PICTURES OF LEARNING TO READ AND WRITE.

The problems with earlier research are on the one hand that it has seen its pictures as absolute and complete representations, and on the other hand that in most cases it is merely grammatical pictures that have been created, i.e. the pictures render to what degree the reader and writer comply with the grammatical norm. The first type of problem can be remedied by reinterpreting the absolute attitude to imply that the descriptions made can be seen as plausible pictures. The restricted grammatical perspective is on the contrary impossible to change or extend; this thesis, therefore, will use some other perspectives in addition to the grammatical one. These perspectives are:

- A physical/medial perspective. (chapter 5)
  In this perspective the activities will be differentiated according to used medium, instruments, and number of participants taking part in the activity.

- A language act perspective. (chapter 6)
  This perspective will be used in order to differentiate between acts with respect to what topic they deal with.

- A genre perspective. (chapter 7)
  The texts read and written and the spoken language acts will in this perspective be analysed as constituting different kinds of texts.

- A perspective of the pattern of action. (chapter 8)
  In this perspective the reading and writing activities will be defined in terms of the physical/medial perspective, the language act perspective, the genre perspective, and a grammatical perspective, while the spoken activities will be examined with a conversational analysis.

- A time perspective. (chapter 9)
  This last perspective will show the development of the child’s ability to take part in the different activities.

Using these perspectives, answers to the following three questions will be searched for:

- What kind of language activities are the children participating in?
- How are the children able to contribute to the activities?
- How does the child’s ability to read and write develop?

By using methods for analysis employed in research concerning reading and writing, both early and late developmental phases, and other types of linguistic research, I will present some new and some already explored aspects of early reading and writing in order to reach a more extended knowledge of what pictures are able to benefit an understanding of what could be meant by learning to read and write, partly as different from, partly as similar to learning other types of language activities. But before these perspectives are applied to the observations, the data base will be presented.
4. PRESENTATION OF THE DATA.

COLLECTION PROCEDURES AND TYPES OF DATA.

Twenty parents volunteered to participate in a study of how pre-school children go about working with the writing system and reading and writing activities. The parents were asked to take notes on how their child worked with reading and writing (even if it did not follow the adult standard), all the questions, statements, and so forth, the child made that concerned writing, reading, written material, the writing system, letters, speech sounds, and so forth, and all the information that was given by the adult. The parents were also urged to take down their notes, if possible, in connection with the described activity. The parental notes were delivered on a monthly basis. In the analysis to appear, nine of these twenty were picked out on the grounds that they had delivered observations for three months or more and that this had been done on a regular basis. The author's two children also participated in the study, which therefore consists of observations of eleven children. The observations cover periods ranging from three months up to four years and four months (see Table 5). Two of the children were observed from their third birthday, the rest from four years of age. None of the children had started school before the end of the observation period. In Sweden children start school the year they become seven years of age. There are seven girls and four boys in the study. The data base consists of 395 observations of the following kind.

C. is playing with small plastic bricks which have letters on them. C's name is Majsan.
1. C: I want to put Majsan. First comes a Majsan letter (takes <M>), then an Albin (takes <A>) (grandfather's name is Albin). What comes next?
2. M: /fi/ as in Jan (M and C look for this letter together (uncle's name is Jan)).
3. C: Then an Albin letter (takes <A>). Now it says Majsan. (Then the mother and the child go on in the same fashion and write the names of friends.)

Example 2. Child: 10 - 4:2 - Girl
In the shop:
1. C: What does potato begin with?

Example 3. Child: 5 - 6:2 - Boy
The child reads a lot, almost everything that comes in front of his eyes: signs, newspaper and picture book headings.

In addition to the detailed observations, the nine parents were asked to fill in a survey form, which was sent to them on four different occasions (after the study had been going for four months, a year, one and a half year, and two years). As can be seen from Table 5, not all of the parents filled in the form on all occasions. The form contained descriptions of different types of behaviour that were recognized as being significant in the child's reading and writing development. The order in which the different types were written on the form was scrambled in two different ways. The parents were asked to write down at what age they had recognized that the child had behaved in the described way for the first time. The first time the survey form was sent to the parents they were also asked to answer some questions about their reading behaviour together with their children.

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41The study started in March, 1984.
42The reading and writing behaviour of one of the children (child no 1) was the starting point of the author's interest in this field of research. Within the first half of the observation period for this child, the main stress was put on the child's own way of dealing with the writing system, in accordance with other types of studies in this field (e.g. Bissex, 1980). By that time the importance of the interactions that surrounded the reading and writing occasions was realized and gave impetus to the present investigation. Therefore the observations for child no 1 deviate to a certain degree from the observations of the other children.

43In the examples the children are marked in the following way: investigation number - age (year:month) - B(oy) / G(irl)
Other notations that are used are as follows:
- C = the observed child; M = mother of the child; F = father of the child;
- "x" = a word or an expression in Swedish, the English counterpart is given in italics; 'x' = a word; /x/ = the sound of a letter; /<x>/ = the name of a letter;
- /<x>/ = a graph; /<x> = a written word; /x-y-.../ = words sounded out or blended together.

The Swedish version of the examples is found in Appendix A.
44The author was excluded from this procedure.
Table 5. Observation period for each child.

<table>
<thead>
<tr>
<th>Child no</th>
<th>Close observations</th>
<th>Survey-observations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age span</td>
<td>Total amount</td>
</tr>
<tr>
<td>1 - Girl</td>
<td>4:1-7:5</td>
<td>3:5</td>
</tr>
<tr>
<td>2 - Boy</td>
<td>3:0-7:4</td>
<td>4:4</td>
</tr>
<tr>
<td>3 - Girl</td>
<td>4:4-5:2</td>
<td>0:11</td>
</tr>
<tr>
<td>4 - Girl</td>
<td>4:4-5:11</td>
<td>1:8</td>
</tr>
<tr>
<td>5 - Boy</td>
<td>4:1-6:8</td>
<td>2:8</td>
</tr>
<tr>
<td>6 - Girl</td>
<td>4:3-5:5</td>
<td>1:3</td>
</tr>
<tr>
<td>7 - Boy</td>
<td>4:3-5:0</td>
<td>0:10</td>
</tr>
<tr>
<td>8 - Girl</td>
<td>4:2-4:7</td>
<td>0:6</td>
</tr>
<tr>
<td>9 - Boy</td>
<td>4:1-4:8</td>
<td>0:8</td>
</tr>
<tr>
<td>10 - Girl</td>
<td>4:1-4:3</td>
<td>0:3</td>
</tr>
<tr>
<td>11 - Girl</td>
<td>3:1-3:3</td>
<td>0:3</td>
</tr>
</tbody>
</table>

PRESENTATION OF THE RESULTS FROM THE SURVEY OBSERVATIONS.

According to the parents' answers in the questionnaire, all of the children were read to at least once a day at home. Eight of the ten parents had started to read to their child around the time the child became one year and some at an even earlier age. The remaining two started when their children were 1:6 years and 2:6 years respectively. Ten out of the eleven children attended nurseries or went to child minders, where they were also read to once a day. Nine of the ten families used the public library on a regular basis ranging from once a fortnight to once a month. The observed children were in other words brought up in highly literate environments. Two of the children had older siblings, who had already started school at the time of the beginning of the observation period. One of the children had an older sibling who started school when the child was 5:4 years old. Concerning impairment with sight, hearing, and motor control, just one of the children was reported to have a slight hearing loss after repeated colds. As can be derived from the survey observations, many of the children had set out on the path of reading and writing before the observation period began by reading (9 children) and writing (7 children) their own name, doodling in order to write (8 children), showing interest in letters and asking about their name or sound (9 children), asking a grown-up to write for the child (6 children), pretend-reading (7 children), writing letters (scrambled), and pretending to be writing (5 children).

PROS AND CONS WITH THE DATA.

The advantage with such material is that situations (playing with friends, shopping, out walking, going by car, going to bed, and so forth) that otherwise would have been very difficult or even impossible for a research worker to record, are described in a vivid way by the parents. The parents have shared with us a glimpse of their daily life together with their children. However, a disadvantage with the material is that it is very uncertain how closely the observations reflect what was said and done (some of the observations seem to come very close to what is possible for an untrained observer to take down, but others are very brief). For this reason it is not always justifiable to make any detailed analysis of the described interactions. In defence of the parents it must be stated that they have followed their instructions (and met expectations) extremely well.

A factor that is impossible to control, when a collection procedure such as this is employed, is that participating in a study as this can have stimulated the observed behaviours in the child and led to more frequent observations. The frequency of notes, on the other hand, does vary for some children to a very large degree, but for other children to a lesser degree. The question, of whether this is because the child is only performing one type of behaviour, or because the parents are blind to other types of behaviour that could be of interest, or because the child is performing these other types of behaviour at times when he is not observed, or perhaps because the parents do not have time to take notes, or because of a combination of these and other factors, must in this study be left unanswered, since there is no possibility of determining these factors. In compensation, since several children have been studied the effects of some of these factors may be neutralized.

Thus, a study as this can contribute to the research in this area with a new type of data, but still there are several drawbacks, due to the collection procedure. Therefore, no extended statistical analysis has been employed.
5. A PHYSICAL/MEDIAL PERSPECTIVE.

THE PERSPECTIVE.

The division of the observations will in this perspective be based on a physical/medial way of describing the acts. That is, they will be grouped according to what type of physical instruments are crucial for the accomplishment of the acts, in what medium they occur, and also how many acting participants there are.

Listening and talking are accomplished in the auditory medium, or the ear-mouth medium. From the perspective of the individual, listening implies only the use of the ear, while speaking requires both the mouth and the ear, the last being an instance of a feed-back control. Reading and writing on the other hand concern the visual medium, or the eye-hand medium. In addition to the visual and kinestetic senses, these activities necessitate instruments such as text, paper, and pencil; the last two are furthermore interchangeable with chisel and stone or stylus and clay or something else as in the example below.

Sometimes C. puts letters with branches.
The idea probably comes from Eeyore, the donkey in Winnie-the-Pooh. Eeyore knows the letter <A>.

Reading is carried out using only eye and text, while in writing eye, hand, paper, and pencil are used, the eye being an instance of feed-back control, as the ear in speaking. Reading and writing are either accomplished in just the visual medium by silent reading and writing or in both the visual medium and the auditory medium by reading aloud and writing aloud (cf. Example 3 and 1).

Moreover all the activities are carried out either by one person alone or by two or more persons, working together and most often also talking about what they are doing. The activities when just one person is speaking will henceforth be called 'speaking alone' while the activities when two or more persons are speaking and listening to each other will be called 'conversations'. Furthermore we will have reading and writing alone either silently or aloud, and reading and writing together aloud. This leaves us with eight categories into which the observations can be grouped.

The data.

In analysing the 395 observations this way 501 different activities are found (see Table 6 below). The acts of reading and writing, alone and together, dominate the picture. But the acts of speaking alone and conversations, i.e. activities without any written materials, amount to twenty percent of the activities (see Table 6). This is perhaps a little bit unexpected, since the study concerns the activities reading and writing. Shared reading is the predominant type of act and it occurs nearly twice as often as shared writing, reading alone, and writing alone, respectively. Nearly two thirds of the activities are thus carried out by the child together with somebody else in interaction. All the acts of shared reading and writing are furthermore carried out aloud. The same holds true for nearly all the cases when the child is reading alone. The exceptions being two instances of child no 5's reading which are carried out silently. When the child is writing alone he is explicitly stated to do this aloud in nearly two third of the cases. In the rest of the cases it is impossible to conclude from the parents' notes whether the writing is done silently or not.

<table>
<thead>
<tr>
<th>Child no:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALONE:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaking</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>8</td>
</tr>
<tr>
<td>Writing aloud</td>
<td>18</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>53</td>
</tr>
<tr>
<td>unknown</td>
<td>16</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>9</td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>32</td>
</tr>
<tr>
<td>Reading aloud</td>
<td>9</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>51</td>
<td>2</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>78</td>
</tr>
<tr>
<td>silently</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>TOGETHER:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conversation</td>
<td>21</td>
<td>26</td>
<td>6</td>
<td>5</td>
<td>21</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>-</td>
<td>93</td>
<td></td>
</tr>
<tr>
<td>Writing aloud</td>
<td>11</td>
<td>6</td>
<td>15</td>
<td>15</td>
<td>16</td>
<td>5</td>
<td>8</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>5</td>
<td>89</td>
</tr>
<tr>
<td>Reading aloud</td>
<td>24</td>
<td>6</td>
<td>9</td>
<td>11</td>
<td>40</td>
<td>15</td>
<td>3</td>
<td>8</td>
<td>13</td>
<td>5</td>
<td>12</td>
<td>146</td>
</tr>
<tr>
<td>Total:</td>
<td>103</td>
<td>47</td>
<td>46</td>
<td>38</td>
<td>148</td>
<td>33</td>
<td>13</td>
<td>20</td>
<td>23</td>
<td>12</td>
<td>18</td>
<td>501</td>
</tr>
<tr>
<td>Activities/month</td>
<td>2.5</td>
<td>0.9</td>
<td>4.2</td>
<td>1.9</td>
<td>4.6</td>
<td>2.2</td>
<td>1.3</td>
<td>3.3</td>
<td>2.9</td>
<td>4.0</td>
<td>6.0</td>
<td>2.5</td>
</tr>
</tbody>
</table>

From Table 6 is also obvious that the children work with different intensity and that they put more effort or interest into certain types of activities than into others. Child no 1 seems to spend most of her time...
writing, mainly on her own. Children no 3, 4, and 7 share this interest, but prefer to do it together with somebody else. The other children, except for child no 2, on the other hand, devote most of their time to reading, preferably in interaction with somebody else. Child no 2 differs from all the rest in being an extreme interlocutor without any special desire to read and write. This child has also the lowest mean for the rate value activities/month.

Many questions arise concerning the activities which cannot be answered within a physical/medial perspective. Therefore, we will turn to a language act perspective next, in order to see if it may give some answers to arising speculations.

6. A LANGUAGE ACT PERSPECTIVE.

Within a language act perspective the activities will be described on the one hand with respect to what is languaged about, i.e. the topic of the communicative act, and on the other hand what comments are given to this topic. The prime reason for choosing this analysis is to differentiate between activities that are concerned with the static linguistic sign and those that are not. The topic/comment distinction was introduced by Mathesius (1975) by use of the terms theme/rheme as the principle of functional sentence perspective. It is the third of four different factors that according to Mathesius determines the order of words in a sentence. The other three are the grammatical principle, the principle of rhythm, and the principle of emphasis. The principle of functional sentence perspective is described by Mathesius in the following way:

... when observing different utterances we find that they are more or less clearly composed of two parts. One part expresses what is given by the context or what naturally presents itself, in short what is being commented upon. As we already know, this part is called the theme of the utterance. The second part contains the new element of the utterance, i.e. what is being stated about something; this part is called the rheme of the utterance. The usual position of the theme of an utterance is the beginning of the sentence, whereas the rheme occupies a later position, i.e. we proceed from what we already know to what is being made known. We have called this order objective, since it pays regard to the hearer. The reversed order, in which the rheme of the utterance comes first and the theme follows, is subjective. In normal speech this order occurs only in emotionally coloured utterances in which the speaker pays no regard to the hearer, starting with what is most important for himself. (ibid. p 156)

The functional sentence perspective has its forerunners in e.g. Plato’s distinction between ‘onoma’ (name) and ‘rhema’ (predicate), and in Paul’s (1970, pp 124-127, 282-285) psychologically based distinction

46This fact is partly due to the different types of observational method with which this child has been studied (see note 42).
between 'das psychologische Subjekt' and 'das psychologische Prädikat'.

Three types of topic-comment constellations are identified in this study. The first is something that we most often communicate about, namely our own and others' lives. This will be called an "object" language-topic-comment constellation. Expressions that carry this topic-comment are e.g. "Life is wonderful!", "A cat is a mammal.", "Once upon a time there were two dragons..", and so forth.

The second and third types of topic-comment constellations concern different aspects of language. The basis of all kinds of reflections on or studies of language as well as other phenomena, is the ability to create them by objectification. One way of objectifying language is as in the following statement: "I'll tell you a story about two dragons.". This is a subject that partly concerns the scholars of rhetoric. We can also make comments about in what medium language is carried out: "I'm listening to talk/talking/reading/writing about two dragons." or "I'm listening to the pronunciation of/pronouncing/decoding/transcribing 'dragons'." All these metalanguage acts concern language use, i.e. a dynamic language object. Corresponding to these metalanguage acts are the language acts that so to speak perform what have been exemplified in these comments, i.e. the actual storytelling act, the actual listening act, the actual act of pronouncing, and so forth.

The topics dealt with in these new types of language acts are for the first two types an object language topic. The topic created by the performance commented on in the third type of metalanguage act is, on the other hand, a static language object. The static language object may also be created by comments made from different grammatical perspectives e.g. a phonological perspective as in "'Dragon' begins with a d and then come r, a, g, o, n.", or a morphological perspective as in "'Dragons' is the plural form of 'dragon'.". These language acts are also metalanguage acts. But in order to differentiate them from the previously presented they will henceforth be called grammatical metalanguage acts.

A situation which consists of one or more language acts will be called a language activity. The activities constituted according to the different topic-comment constellations will be called object language activities (henceforth: OLA), metalanguage activities (henceforth: MLA), and grammatical metalanguage activities (henceforth: GMLA). The two types of language objects can be created in different ways, e.g. a genre act vs a physical/medial act and a morphematic object vs a phonological object, and so forth. The metalanguage acts also have corresponding OLAs and GMLAs.

Furthermore, activities dealing with different topics are logically disparate, i.e. knowing how to carry out one type does not imply that you know how to carry out another. For example, being able to read and write does not by necessity imply that you are able to participate in a corresponding MLA or a corresponding GMLA, and vice versa. Even though the activities need not be related they often are in practice. Thus, in this perspective we will investigate the activities described by the physical/medial perspective concerning the kind of language activities they constitute, the topics dealt with, and how these topics are handled in different ways.

THE DATA.

Language activities and their topics and comments.

In the material six hundred and sixty-six different language activities of the three types discussed above are found (three hundred and two OLAs, eighty-three MLAs, and two hundred and eighty-one GMLAs see Table 7). A little more than one fifth of the activities described in the physical/medial perspective consists of two or more different language activities. They are a combination of a MLA and an OLA in twenty cases, an OLA and a GMLA in fifty-four cases, and a MLA and a GMLA in twenty-two cases. In twenty-four cases they consist of three or more language activities. The remaining three hundred and eighty-one cases consist of just one of the above presented language activities (henceforth they will be called simple language activities). The twenty-four activities consisting of three or more language activities can also
be described as a blend of two or more of the above presented types, except in one case where two MLAs are combined with another activity, though in this presentation of the data this exception will be treated as consisting of just one MLA in combination with another activity. Described this way they consist of twenty-five simple language activities and thirty-four combinations of the above presented types. There are thus a total of five hundred and thirty-six simple language activities and combinations in the data. The distribution amongst the six types of simple and combined language activities can be seen in Table 7.

<table>
<thead>
<tr>
<th>LANGUAGE ACTIVITIES</th>
<th>PHYSICAL/MEDIAL ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ALONE</td>
</tr>
<tr>
<td>OLA</td>
<td>speak</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MLA</td>
<td>-</td>
</tr>
<tr>
<td>GMLA</td>
<td>4</td>
</tr>
<tr>
<td>OLA+MLA</td>
<td>1</td>
</tr>
<tr>
<td>OLA+GMLA</td>
<td>1</td>
</tr>
<tr>
<td>MLA+GMLA</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
</tr>
</tbody>
</table>

A combination between a MLA and an OLA is when the language activities deal with different topics/comments, but the metalanguage act is a comment on the object language act, e.g. "I'm writing" + the actual writing. A combination between a MLA and a GMLA is when the metalanguage act is a comment on the language object which becomes the topic in the GMLA e.g. "When you write Ann, the /<a>/ comes first, and then ...". A combination between an OLA and a GMLA is when the topic or comment in the OLA is converted into a language object in the GMLA e.g. "There it says Ann. Ann begins with an /<a>/.". In the presentation of the data all these different types of combinations will be separated and dealt with under the main type of language activities, respectively.

The frequency of different types of language activities, simple or combined, furthermore, varies according to type of media. In nearly two thirds of the cases the simple OLAs are performed in the media of reading and writing alone, which is caused by the investigation. The simple GMLAs are on the other hand most often performed together with somebody else and conversation is the most commonly used of these collective work types. The MLAs, which except in nine cases are combined with another activity, are nearly exclusively performed in shared reading and writing activities, although the last type of activity predominates. Combinations consisting of an OLA and a GMLA have on the contrary reading together as the most prominent feature.

Object language activities (OLAs).

OLAs concern topics and comments in the "object world", and in these data they mainly occur in the form of reading and writing. The most prevalent topic/comment concerns the letters of the alphabet (see Table 8 below). The most common activities are letter reading, either singles, or some, or all in a word, and writing lists with letters. Sometimes even the whole alphabet is worked on by reading it or rattling it off.

Example 5. Child: 7 - 4:3 - Boy
M. is reading a fairy-tale. C. is at the same time looking in the book.
1. C: Look mummy, my letter (pointing to <H>) and this is Martin's letter (pointing to <M>).

Another type is when the child pretends to write by putting a lot of letters together ending up with one or more nonsense words. Sometimes the child wants somebody to read his "text" which can be quite a laborious task and is sometimes even impossible to carry out. Usually the child does not know himself what he has written or what he had in mind when writing it. This activity will be called graph-writing to differentiate it from the writing of letters as such.

Example 6. Child: 3 - 4:5 - Girl
C. has written <O GDCA EFHI LTO> on her black board.
1. C: Look what I have written on the board. What does it say?
2. M: Ogdaceaefhilo
3. C: Is there anything that is named like that?
5. C: But I know what it means in the pancake language.

I = end of line
The reading activity in this observation is an example of an activity that is coded as both an OLA and a GMLA, since it handles the topic “ogpaceftilto” both as an object language topic in the mother’s reading of it and as a static language object in the child’s comment on what it means.

A very special type of treatment of letters is found in two instances (child no 8). The child knows a lot of letter names but she does not know their corresponding shape, and sometimes when she pretends to read she passes over into something which will be called graph-reading. As in the case with graph-writing, graph-reading should be kept apart from the reading of letters as such.

Example 7. Child: 8 - 6:5 - Girl
When C. is “reading” e.g. headings in newspapers they sometimes becomes full sentences, which she makes up herself, and other times she just says names of different letters which do not correspond to the letters she sees in the texts. The names of the letters have probably been learned at nursery school.

The second most frequent topic/comment is persons and, more precisely, the name of persons. The children read and write names, their own, the names of members of the family and of close relatives and friends.

Example 8. Child: 8 - 4:3 - Girl
C. is looking at a page in a newspaper with just text.
1. C: Look here it says Ann if you take away these! (pointing to the letters <ÄNN>/ in the written word <SPÄNNANDE>) and covering the dots over the letter /<Ä>/)
2. M: Yes, it does!
C. and M. cut out the new word <ANN> and paste it up.

Example 9. Child: 4 - 4:6 - Girl
At the nursery school: C. and her best friend are writing down the names of all the children at the nursery school. They are copying the names from the signs on the children’s boxes.

Also other types of topics and comments dealt with concern fields that are semantically very close to the child and in many cases parts of the child’s immediate surroundings. In other words they can be expected to be very well known by the child. They are grouped into the following fields:

- places: addresses, names of towns, countries but also names of stores and other types of official buildings;
- social relations: e.g. greeting cards, messages for controlling the behaviour of others;
- food: labels on food packages, shopping lists;
- conveyances: different types of conveyances and their brand names;
- personal feelings: words and expressions for feelings;
- household utensils: everything that you can find in a home which is not covered by some of the other fields;
- animals: names of animals and stories about animals;
- activities: books, messages, and postcards concerning what the child and/or somebody else have/had done, are/is doing, or are/is going to do, most often it is some sort of description of daily activities;
- toys/games: names of toys and games

In addition there are two less specified groups called “other” and “unspecified”. The group called “other” covers the reading and writing of word lists and of some few single words. The word lists usually contain words from two or more of the other areas (see Example 10), while the single words are more disparate, e.g. “vad” (what); “il” (squall), “hav” (sea), and so forth.

Example 10. Child: 3 - 5:0 - Girl
C. is occupied by copying and asks afterwards what it says. C. has written: "<"BRIO; LEGO; DE LUXE; AEG; INPUTS">*.

**"BRIO" and "LEGO" are brand names of toys; "DE LUXE" and "AEG" are brand names found on the stove; "INPUTS" is found on the amplifier.

The last group which is called “unspecified” covers some instances of writing scribbles without any explanation of what is written. These activities could be compared with the graph-writing presented above, with regard to a lack of content. Scribble-writing which is said by the child to deal with some topic is in the analysis coded as belonging to that topic. That is these texts "carry" an individual content since the child knows what the text says, but from a grammatical point of view they lack content. Most of the topics and comments coded as unspecified, though, arise from the parents’ very short notes about the children’s reading of labels, signs, headings, comics, and books, which do not state what the topics and comments are. It is especially observations from child no 5’s reading alone that dominate this group, e.g. see Example 11. But as for the groups presented above most of these topics and comments seem to be well known by the child. It is not seldom that children even read text already read to them once or many times.
Example 11. Child 5 - 6:8 - Boy
C. is reading a book. It is a well known text for him since we have read it to him several times. But we are surprised at his smooth reading style and his reading speed, approximately 120 word/minute.

Table 8.
Topics and comments dealt with in simple OLAs and OLAs in combination with MLAs and GMLAs.

<table>
<thead>
<tr>
<th>TOPIC:</th>
<th>OLA</th>
<th>OLA + MLA</th>
<th>OLA + GMLA</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>letters</td>
<td>31</td>
<td>5</td>
<td>14</td>
<td>50</td>
<td>17%</td>
</tr>
<tr>
<td>graph-writing</td>
<td>20</td>
<td>2</td>
<td>2</td>
<td>24</td>
<td>8%</td>
</tr>
<tr>
<td>graph-reading</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>persons</td>
<td>40</td>
<td>7</td>
<td>8</td>
<td>55</td>
<td>18%</td>
</tr>
<tr>
<td>places</td>
<td>13</td>
<td>2</td>
<td>5</td>
<td>20</td>
<td>7%</td>
</tr>
<tr>
<td>social relations</td>
<td>11</td>
<td>4</td>
<td>1</td>
<td>16</td>
<td>5%</td>
</tr>
<tr>
<td>food</td>
<td>6</td>
<td>2</td>
<td>7</td>
<td>15</td>
<td>5%</td>
</tr>
<tr>
<td>conveyances</td>
<td>6</td>
<td>0</td>
<td>5</td>
<td>11</td>
<td>4%</td>
</tr>
<tr>
<td>personal feelings</td>
<td>6</td>
<td>1</td>
<td>-</td>
<td>7</td>
<td>2%</td>
</tr>
<tr>
<td>household utensils</td>
<td>5</td>
<td>1</td>
<td>-</td>
<td>6</td>
<td>2%</td>
</tr>
<tr>
<td>animals</td>
<td>5</td>
<td>-</td>
<td>1</td>
<td>6</td>
<td>2%</td>
</tr>
<tr>
<td>activities</td>
<td>3</td>
<td>-</td>
<td>3</td>
<td>6</td>
<td>2%</td>
</tr>
<tr>
<td>toys/games</td>
<td>2</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>other</td>
<td>19</td>
<td>3</td>
<td>8</td>
<td>30</td>
<td>9%</td>
</tr>
<tr>
<td>unspecified</td>
<td>46</td>
<td>4</td>
<td>2</td>
<td>52</td>
<td>17%</td>
</tr>
<tr>
<td>Total</td>
<td>215</td>
<td>31</td>
<td>56</td>
<td>302</td>
<td>100%</td>
</tr>
</tbody>
</table>

Within the simple OLAs the reading of letters is usually performed together with somebody else, while the writing of letters as such as well as the graph-writing and the treatment of the whole alphabet is usually done alone. The topics 'persons', 'food', and 'personal feelings' are also most often dealt with in reading together and writing alone. On some occasions this is a result of the fact that something is first written by the child on his own and then the reading of his text is done together with somebody else. The reasons for this can be many, for example, that the child is not able to read his own writing (see Ex 6 and 10 above), that the text has as its addressee the other person, that the child just wants to show his writing, or that the other person is interested in the child's writing, either in the form or the content or both. This last mentioned reason can be a consequence of participating in this study. The other topics are on the other hand dealt with by the child alone either by reading or writing about them, the act of reading alone being most frequent for the unspecified topics.

When the OLA is combined with either a MLA or a GMLA the act of reading together is the most common for all the topics except 'persons'. This topic occurs mainly when the parent and the child are writing together.

Metalanguage activities (MLAs).

Example 12. Child: 7 - 4:11 - Boy
C. is writing his name on invitation cards to his birthday party.

1. C: What luck that I have learned to write my name by myself, otherwise they wouldn't know who it is from!!

The joy that is expressed in this observation is boundless. The child has for some four months struggled to learn how to write his name. This is not an easy task when you have a long name filled with many difficult and strange letters, as this child once remarked on one of the letters in his name. But in this observation the child does not only succeed in writing his name, he also makes a comment on the act of writing. It is thus an observation of a combination of an OLA with the topic as the child's own name and a MLA with the topic of writing as such.

Of the eighty-four MLAs found in the data thirty-one consist of a combination as the one above, i.e a combination of an OLA and a MLA. Forty-two activities consist of a combination of a MLA and a GMLA and one consist of the same type of combination but with two MLAs. In e.g. Example 1 above child no 11 makes a metalanguage comment that she will, as she puts it, 'put' her name. Then she does not just simply write her name but instead she comments very elaborately on how this is done by using letters and telling in what order they will be put. In some of her work she gets help from her mother. In this work she is turning her name into a static language object which is analysed with the help of the alphabetic letters. The girl ends the grammatical work by reading her own name. Neither the writing nor the reading of the name is done in a grammatically correct way.

Just nine of the MLAs are simple. These are when the children's reading and writing abilities are commented on. In the next example the child emphatically changes the topic introduced by his father for the topic concerning his own ability to participate in such a language activity.
Example 13. Child: 9 - 4½ - Boy
C's name is Erik.
1. F: What letter does Erik begin with?
2. C: I don't know!
3. F: How does it sound when you start to say Erik, then?
4. C: I don't know: I can't read, don't you understand!
5. F: But you can write Erik very elegantly anyway.

This observation could be compared with an observation made one month earlier, where the boy does not seem to doubt his reading ability, especially not the one concerning his own name or the names of the members of his family.

C is sorting our post.
1. C: This is John's comic.
2. M: How do you know?
3. C: I'm reading you see! This is for you mummy.
4. M: Does it say mummy?
5. C: Yes ..... No, Åsa. (C. smiles)
C. often pairs things marked with our names, e.g. clothes and post with the signs over our towel rack. It seems as if he sees our names as wholes.

The difference in self-reliance between these observations is probably a result of what states of mood the child is in, which the mother also notes in the margin after the first of the observations above: "This was not C's best day!"

Thus the terms 'reading' and 'writing' can refer to different kinds of abilities, and to name all of these activities reading and writing, as well as e.g. the scribbling, the graph-writing, and the graph-reading presented above, challenges probably our common sense as to what should be regarded as proper reading and writing. The discussion of this subject, however, will be postponed to the chapter dealing with pattern of actions and the grammatical aspects of the children's reading and writing. Instead we will look into what types of comments the children and their parents make about their language use, i.e. what dynamic language object they deal with. The most common comments are 'read' and 'write' (see Table 9). Other comments used which are interchangeable with 'write' are 'draw', 'put', and 'spell'.

The low amount of MLAs in the acts of reading in comparison with the acts of writing follows from the fact that the amount of the comment 'read' is less than the amount of the comment 'write'. This is so despite the fact that the amount of reading activities exceeds the amount of writing activities. In the reading activities the most commonly used comment is not 'read' but instead 'it says' or literally translated from Swedish 'it stands'.

Example 15. Child: 9 - 4½ - Boy
1. C. (pointing to the label on a parcel for his grandfather Gustav) Does it say grandfather there?
2. M: It says Gustav, as grandfather's name.
3. C: Mummy, draw it here in my sketch-block! (M. writes <GUSTAV>) Does it say Gustav there?
4. M: Yes!
C. goes satisfied to his room and puts the sketch-block in his drawer.

The text is thus the topic and not the language act as such, therefore the comment does not constitute a metalanguage act. Something similar is found with the comment 'spell' which is more often used with a text, a word or a sound as its topic, than it is a comment on what the language actor does in language. In the reading activities the text as such is thus more often given as the topic than the actual language act. In the writing activities it is instead the language act that is commented on. A probable interpretation of these circumstances is that in the reading act it is the text and what it says which is of central concern and not the language actor and what he is doing, while in the writing act the opposite is true. The text could therefore for good reasons be said to be more bound up with the writer than with the reader, since the writer is the originator of the text.

Another type of comment which is used either about a topic that is talked about in an OLA or a GMLA in the same way as the above is 'say'.

Example 16. Child: 2 - 5½ - Boy
1. C: "Jag-har-le-go-sa-ker". If I say "jag-har-le-go-sa-ker", then it ends with /ær/.
2. M: Yeah, that's very good!
*I have lego things

The last three types of metalanguage comments to be presented are most often used together with a static language object. They are 'sound (it (out))', 'listen', and 'letter'. 'Letter' is a literal translation of the Swedish verb "bokstavera" derived from the noun "bokstav" (letter). In
English this verb would correspond to something as ‘take the letters’. Examples of these types of comments will be shown next.

<table>
<thead>
<tr>
<th>TOPIC:</th>
<th>MLA</th>
<th>OLA+ MLA</th>
<th>MLA + GMLA</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>writing</td>
<td>3</td>
<td>16</td>
<td>18</td>
<td>37</td>
<td>44%</td>
</tr>
<tr>
<td>reading</td>
<td>6</td>
<td>9</td>
<td>3</td>
<td>18</td>
<td>21%</td>
</tr>
<tr>
<td>saying</td>
<td>-</td>
<td>2</td>
<td>6</td>
<td>8</td>
<td>9.5%</td>
</tr>
<tr>
<td>sounding</td>
<td>-</td>
<td>1</td>
<td>7</td>
<td>8</td>
<td>9.5%</td>
</tr>
<tr>
<td>drawing</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>9.5%</td>
</tr>
<tr>
<td>putting</td>
<td>-</td>
<td></td>
<td>3</td>
<td>3</td>
<td>4%</td>
</tr>
<tr>
<td>listening</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>3</td>
<td>4%</td>
</tr>
<tr>
<td>spelling</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>“lettering”</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>31</td>
<td>44</td>
<td>84</td>
<td>100%</td>
</tr>
</tbody>
</table>

Grammatical metalanguage activities (GMLAs).

All the metalanguage comments that combine with either an OLA or a GMLA could thus have two meanings, respectively. In combination with an OLA as in e.g. Example 12 above, a language act is given a metalanguage comment. In combination with a GMLA a static language object is given a metalanguage comment. There is a difference between on the one hand saying that you are going to write something and then just performing the writing, and on the other hand saying that you are going to write something and then telling how you are handling the writing system, what letters are used, in what order they come, and so forth, while doing the writing.

A prerequisite for the GMLAs is that a static language object is created, i.e. language is objectified. In the combination of a MLA and a GMLA this objectification is marked by the metalanguage comment, but in most activities in the data the objectification is simply performed without any such comment. This last type of objectification consists in taking an item from the immediate language usage and making it the topic of a comment, i.e. the objectification performance is inherent in the act, as in the next example:

Example 17. Child: 2 - 4:9 - Boy
C. and M. are out walking.
1. C: What kind of car is that? (C is pointing to a Renault)
2. M: It’s a Renault*.
3. C: Renault, there is an /o:/ in that.
4. M: Yes, there is.
5. C: An /<A>/**.

*Renault* is pronounced /r”no:/
**probably a comment that the letter <Å> with the pronunciation /o:/ resembles the letter <A>.

Fields from which the static language objects are taken can be seen in Table 10. The fields are nearly the same as those found in the OLAs. New are ‘letter-sounds’ and ‘date’ (the last mentioned covers names of months). The group “other” covers the same type of topics as in the OLAs. The group “unspecified” is, on the other hand, careful pronunciation of, the reading of, the writing of, and talking about single words. The order of the fields with respect to size is also nearly the same as for the OLAs. The most salient divergences are firstly the enhancement of the value for the topic ‘food’, and secondly the inversion of the topics ‘letters’ and ‘persons’, the last now being the prime topic. But still these two last mentioned topics dominate the language activities.

As for the OLAs the work with letters occurs most often in acts of reading and writing together. The distribution of the other topics among different types of physical/medial activity corresponds well with the main feature of the distribution of language activities amongst physical/medial activities. Thus, a topic dealt with in a simple GMLA is usually performed by talking together. Exceptions to this are the topics ‘household utensils’ and ‘conveyance’. The first is most often dealt with by reading either alone or together, and the second occurs most frequently in writing together. A GMLA in combination with an OLA deals with topics usually in the medium of reading together and in combination with a MLA the topics are dealt with in the medium of writing together.
Table 10.
Topics dealt with in simple GMLAs and GMLAs in combination with OLAs and MLAs.

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>LANGUAGE ACTIVITY</th>
<th>GMLA</th>
<th>OLA + GMLA</th>
<th>MLA + GMLA</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>persons</td>
<td></td>
<td>45</td>
<td>6</td>
<td>13</td>
<td>64</td>
<td>23%</td>
</tr>
<tr>
<td>letters</td>
<td></td>
<td>24</td>
<td>15</td>
<td>13</td>
<td>52</td>
<td>19%</td>
</tr>
<tr>
<td>graph-writing</td>
<td></td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>1%</td>
</tr>
<tr>
<td>letter-sounds</td>
<td></td>
<td>19</td>
<td>6</td>
<td>2</td>
<td>27</td>
<td>10%</td>
</tr>
<tr>
<td>food</td>
<td></td>
<td>10</td>
<td>5</td>
<td>1</td>
<td>16</td>
<td>6%</td>
</tr>
<tr>
<td>places</td>
<td></td>
<td>11</td>
<td>1</td>
<td>3</td>
<td>15</td>
<td>5%</td>
</tr>
<tr>
<td>social relations</td>
<td></td>
<td>5</td>
<td>5</td>
<td></td>
<td>10</td>
<td>4%</td>
</tr>
<tr>
<td>conveyances</td>
<td></td>
<td>5</td>
<td>3</td>
<td></td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>activities</td>
<td></td>
<td>8</td>
<td>-</td>
<td>9</td>
<td>1</td>
<td>9%</td>
</tr>
<tr>
<td>household utensils</td>
<td></td>
<td>7</td>
<td>-</td>
<td>8</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>personal feelings</td>
<td></td>
<td>4</td>
<td>-</td>
<td>6</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>toys/games</td>
<td></td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>dates</td>
<td></td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>3</td>
<td>1%</td>
</tr>
<tr>
<td>other</td>
<td></td>
<td>23</td>
<td>8</td>
<td>3</td>
<td>34</td>
<td>12%</td>
</tr>
<tr>
<td>unspecified</td>
<td></td>
<td>14</td>
<td>2</td>
<td></td>
<td>16</td>
<td>6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>182</td>
<td>56</td>
<td>43</td>
<td>281</td>
<td>100%</td>
</tr>
</tbody>
</table>

The static language objects can be looked at from many different angles within the grammatical paradigm. But the most common types of comments in the data are those concerning basic rules for the writing system and pronunciation of the writing system, which in grammar have been described in the phonological part. As stated in chapter 3, spoken language is in this type of comment seen through the lens of the writing system. Comments concerning the writing system amount in the data to eight hundred and ten; other types of grammatical metalanguage comments made amount to forty-five. This last type will be treated separately and presented after the first type.

The comments made are furthermore more or less explicitly stated. In commenting on e.g. the spelling of 'dragon' a more explicit comment would be: "first comes the letter /<d>/, then comes the letter /<r>/, ...", a less explicit comment would be "d, r, ...". The first type will henceforth be called 'explicit comment' and the latter will be called 'comment performance'. The explicit comment consists of two acts: first an explicit statement: "first comes a letter", and second a comment performance: "d". These two acts are not necessarily related as regards the ability to use them. The explicit statement implies that you know how to say something but it does not necessarily imply that you are able to perform the comment performance inherent in the explicit comment. In Example 2 above the child knows that 'potato' begins with something, but she cannot tell what, so the mother helps her out of this state of not being able to fulfill or perform the act. The opposite is also true, i.e. being able to make a comment performance does not necessarily imply that you can tell, explicitly state, what you are doing. In Example 18 below, the child is able to create new syntagmatic combinations on the analogy of the paradigm for common Swedish surnames, but she does not give an explicit statement of doing so. The child is just playing around with the language objects as an acrobat plays around with his body. It is a sort of game with language.

1. C: Larsson and Andersson begin, no, end the same, 'son'. Johansson, Svensson too. Libson (from Liberg) (C. laughs), Wiklandson (from Wiklander) can also be said. Blomberg, Blomson.

In presenting the grammatical perspective in chapter 3 it was stated that the static language object is created so as to consist of major units which can be analysed into minor units through using different rules or conventions. This is the basic principle of all grammatical treatment and by the same token the basic principle of the alphabetic writing system, i.e. what is known as the principle of duality of structure. This principle states that the articulation of the means of expression, i.e. the static language object, is regarded as consisting of two levels. At the first, higher or primary level, language is analysed in terms of combinations of meaningful units. At the other, lower or secondary level, it is seen as a sequence of segments which lack any meaning in themselves, but which combine to form units of meaning.

An example of how this principle is explicitly commented upon is given in Example 17 above, i.e. "Renault, there is an /<u>/ in that". Expressions judged as explicit comments on this principle are:

48 Definitions of the various grammatical features presented here are taken from Crystal (1985), but in certain cases, these definitions are modified to adjust to the perspective of writing.

49 In the list examples of different types of explicit comment are given. Comments which are similar in structure are grouped together. On some occasions the comment is a construction of what has been said over two or more turns in
As for the objectification, comment performances on the principle of duality of structure are inherent not only in the cases of explicit comments on the principle but also in all other types of grammatical acts that will be discussed below. This is so on both the primary level and the secondary level. Thus all the following grammatical comments are considered to have a comment performance on the grammatical features: objectification and duality of structure, inherent in them. These two types of comment performances will not be coded in this analysis. This implies, furthermore, that one and the same comment, seen from a physical point of view, can be analysed as dealing with several different grammatical features.

The units or segments referred to in the principle of duality of structure are words, morphs, letters, and letter-sounds. In this data material there are just a few comments on morphs and words. The
dialogue, since many of the comments are the result of a joint work. E.g. in the following dialogue the mother and her daughter are amongst other things giving the comment on the duality of structure: "fe" are the letters /<?>/

1. C: "Februari" (February) begins with fe.
2. M: What letters are there then?
   If the examples given are of this type of construction they are marked by an asterisk (*) at the beginning of the comment. If the topic that is commented upon is given in the speaker's previous turn this case is marked by putting the colon ':' after the topic. If the comments in the examples are given by an adult alone they are marked with two asterisks (**). The total number of each group is given in parentheses after the comment.

letters and the letter-sounds are on the other hand those segments that are dealt with most often. They are dealt with, among other things, in accordance with the second main principle of the writing system, called the principle of invariance. This principle states that each letter is seen as having a set of defining phonetic and graphic properties, such that whenever a letter occurs, the corresponding features can also be traced.

This is the distinction from Ancient Greek and Latin grammar between the letter's potestas (power or phonetic value), figura (shape), and nomen (name) (Robins, 1967, p 24). These three characteristics of the letter can be placed as the corners in what can be called an invariance triangle:

In Ancient Greek the letters were defined as those elements ('stoicheia') that were the primary and indivisible elements of articulated speech (Robins, 1967, p 31-32). The letter was thus seen as the ultimate and invariant feature with which articulated speech, i.e. the pronunciation of a language object, was analysed. The parallel with traditional phonology is obvious. In this type of grammatical treatment the phoneme is defined as the invariant feature, the instrument with which articulated speech is analysed.

In OLAs children and parents just tell the name or the sound of a letter shape seen or when writing it, and in GMLAs the letters are dealt with as parts of words and as having certain characteristics. All these treatments concern some part of or the whole invariance triangle, therefore the comments made within both of these types of activities will be presented here. The next example starts out as an OLA, in which the child recognizes a well-known letter. Then it turns into a GMLA when the child goes on to find another one of the same sort, i.e. the letter is treated as a static object, a form such that it has characteristics in common with other objects in the world.
Expressions judged as explicit comments on the principle of invariance are:

- "<G>" is a phonetic shape marker (62)
- "<A>" is a graphic shape marker (14)
- "<s/>" is a phonetic value marker (10)
- "<h/>" is a graphic shape marker (2)
- "<letterlike scribbles>" is a graphic shape marker (2)
- "<<s, a>/>" is a phonetic value marker (2)
- "<<GUSTAVSBERG>" is a unit identification marker (1)
- "<ACO Handbalsam>" is a unit identification marker (1)
- "<BAD>" is a unit identification marker (1)
- "<j/>" is a phonetic value marker (1)

A comment performance is a simple manipulation of the principle as in the next observation:

Consideration of the principle of invariance can also be marked by comments about the phonetic value or the graphic shape of a letter-unit as in the following observation:

Comments concerning a unit's phonetic value and graphic shape are not only used within the comments on invariance, but also as a means of referring to the unit as such as in the next observation (for graphic features see e.g. line 1 in Example 22 above). However, it is questionable if these types of comment should be treated as GMLAs, but for the sake of simplicity they are here.

In all, there are twenty-eight explicit comments on a unit's phonetic value and forty-six explicit comments on a unit's graphic shape in the data. Those of definite interest are the last type of comment that involves the description of a letter by telling its distinctive features, because of the resemblance of this description to that of the graphologist (e.g. Allén, 1965, p 80-84). The letters referred to or described in this way are50:

50The number of the child or of the child’s mother or father, who gave the presented comment is given in parentheses, e.g. C3 = child no 3, and M9 = mother to child no 9.
Expressions judged as alternation-comments are as follows:

- there are two /<e>/s in Elisabeth. In Elin too (3)
- Lana also begins with /<b>/ (3)
- <ANANAS> : there is another Nils (3)
- * <H> it sounds /h:/ as in "hej" and as in Hans (1)
- both Maria and Mia begin with the same letter (2)
- <"LÅNGFIL">: begins and ends with the same letter /<b>/ (2)
- "brevlåda" and "bank" begin with /<b>/, the same goes with Benny (2)
- "it says "ocean", but it looks the same as "och" in the beginning (1)
- "el" you can draw the same (1)
- "papper": begins with the same as "pappa" (1)
- "Korak begins with the same letter as "tack" ends with (1)
- if you hold the book upside down you can believe that /<a>/ is a /<v>/ with a line (1)
- /<s>/ looks strange (2)
- I use /<q>/ instead of /<k>/ (1)
- * mummy's /<a>/ looks /<A>/ and daddy's /<a>/ looks < > (1)
- a letterlike form; is not a real one (1)
- <"DOMUS, DOMUS, DOMUS, ...">: there are so many of the same sort (1)
- <"LÄSKEDRYCK"> (printed on several bottles) here it says the same (1)
- * "OCH": you have written that before (2)
- * "och" is somewhere else (2)
- * Grants is the same as Blomkrans (1)
- * "tungare" and "tyngre" are the same thing (1)
- Larsson and Andersson begin, no, end the same way, -son (1)

Expressions judged as contrast-comments are:
Another way of operationalizing the principle of invariance is by making an inventory of the letters known. This is usually performed as an OLA. The inventory is either done by writing the letters down, though not as graph-writing, but as writing of letters as such or saying them or as in Example 26 singing them:

Example 25. Child: 10 - 4:2 - Girl
C. is often occupied with writing letter paper, as she calls it. She writes all the letters she knows on small pieces of paper, which get all covered with letters.

C. is shouting and singing in her room. She is in this way "reading" the poster with the alphabet at the top of her voice. She knows nearly all the letters.

In these observations the inventories are just treated by comment performances (21) but in other observations they are also given an explicit comment (25). The comments on inventories always coincide with the comment performances and the explicit comments on the principle of invariance presented above. Thus the letter-inventory is a true part of the principle of invariance. In fifteen instances the child also make inventories of the words he knows, by writing them in what can be called "What-I-can-read-and-write-lists or -inventories", and reading these lists or reading other types of word list known by the child.

The next principle of interest operates with the principles of duality of structure and invariance as its prerequisites and is the third main principle of the alphabetic writing system. It is called the principle of linearity. This principle states that the lower or secondary level is presented

as a unidirectional sequence of elements (letters or letter-sounds). If a letter \(<A>\) precedes letter \(<B>\), then the letter-sound of \(A\) or the naming of the letter \(A\) precedes the letter-sound of \(B\) or the naming of the letter \(B\), and vice versa.

This is an extension of the principle of duality of structure, because it indicates the location of the units. The principle takes the form of explicit comments in one hundred instances as in the following observation:

Example 27. Child: 4 - 5:0 - Girl
C. and M. are doing a crossword for children:
1. C: "And", first /<a>l/, then /<a>l/(C. writes the letters)
2. M: "And", what will come next?
3. C: /<e>l?
4. M: No, listen I"a-n-d"!
5. C: /<t>l.
6. M: No, /<d>l.

The observation above shows the usual sequence used when a whole word is completed (twenty-five occurrences): "first.., then.., next comes..", although sometimes the last letter or letter-sound is marked by saying that the word ends with that letter or letter-sound. Another type of explicit comment on the principle of linearity are the so-called incompletes (seventy-five occurrences), which treat either the beginning of the word or the end of the word. The beginning of the word is the part most often discussed. In some comments both the beginning and the end of the word are attended to and in some just one or two letters in a word are given their location. Expressions judged as incomplete explicit comments on the principle of linearity are:

- Karin begins with /<k>l/ (2)
- first comes /<h>/ (4)
- "ut" the first letter is /<u>l/ (4)
- * you can hear /<s>/ first in "indianer" (2)
- *"Erik" begins with /<e>l/; the second letter is /<l>l/ (2)
- *"ramsa" begins with /<b>l/ and then comes /<a>l/ (37)
- * then come /<g, a>/ (4)
- *"permor" ends with /<o>l/ (10)
- */k/ is the last (4)
- Otto begins with /<o>l/ and ends with /<o>l/ (1)
- *"LÅNGFIL" : begins and ends in the same letter /<b>l/ (3)
- as /<d>l/ (1)

- wild
- duck
- out
- Indians
- doggerel
- pencils
- buttermilk
In forty instances a comment performance is given by saying the units in the right order as in Example 21. Thirty-four of these are complete linearizations, while six are incomplete. Thus the comment performances are usually used to make complete linearizations, while the explicit comments are usually used for incomplete ones. An interpretation of this circumstance is that an incomplete linearization is not the most natural way of treating the principle of linearity and is therefore marked by the use of an explicit comment.

The principle of linearity is handled in a few cases by the tools of:
- acrophony (explicit comments: 13; comment performances: 2),
- contraction (explicit comments: 2),
- elision (explicit comments: 5; comment performances: 12),
- intrusion (explicit comments: 1; comment performances: 1), and
- commutation (comment performances: 4).

In the cases with acrophony a word is taken as a representation of the first letter unit in that word, as in the following observation, where there are five instances of the explicit comment on the use of this tool e.g. "/r/ as in 'Rickard'".

Example 28. Child: 11 - 3:2 - Girl
C. and M. are reading the newspaper. C. looks at the word "<HÄRLIG>"
1. C: (pointing to <R>) What's its name?
3. C: As in Rickard! (pointing to <H>) What's its name?
4. M: It is sounded /h:/, as in "hej"...
5. C: and as in Hans! (pointing to <Ä>) Is that an Albin?
6. M: No, it is sounded /e:/.
7. C: (pointing to <L>) What's its name?
9. C: As in Louise! (pointing to <L>) That one is in "finger".
10. M: Yes, it is.
11. C: (pointing to <G>) Is that one in "och"? ... No!
12. M: It is sounded /g:/.
13. C: As in "glass".
The names used in the dialogue are names of relatives and friends.

The contraction tool is used when something is said to be abbreviated:

Example 29. Child: 1 - 6:7 - Girl
C. writes <LS> (="5-års lekis") pre-school for 5-year-old children
1. C: I'm abbreviating.

In the cases of using the tools elision, intrusion, and commutation, these grammatical treatments are most often left without any explicit comments as in Example 30, but this occurs on some occasions as in Example 31.

Example 30. Child 2 - 5:9 - Boy
1. C: Korak and Orak* are nearly the same word.
2. M: Yes, what does Korak begin with, which you don't find in Orak?
3. C: Korak, Korak, "ko", "ko" it is almost as "koger" "Koger", "ko", /k/.
4. M: Yes, which letter is it?
5. C: Korak, "ko", "ko". No, I don't know. You say it!
6. M: /<k>/ is its name.

*Korak is the name of Tarzan's son and Orak is the name of Korak's twin brother according to the father of child no 2!

Example 31. Child: 5 - 6:3 - Boy
C. is reading the word "<buss>".
1. C: If you take away an /<s>/ it becomes "bus", and if you put an /<l>/ there it becomes "blus".
2. M: bus, mischief
3. C: It is sounded /b:/. blouse

The principle of linearity is further a prerequisite for the fourth main principle of the alphabetic writing system, which is called the principle of biuniqueness. This principle states that any sequence of letters will be represented by a unique sequence of sounds, i.e. a unique articulation, and vice versa. In other words, there is a one-to-one (or reversible) correspondence between articulation and sequence of letters.

In the following observation all the four most basic principles of the alphabetic writing system are at work:
Exceptions to the principles of invariance, linearity, and biuniqueness are dealt with by different kinds of spelling rules, which take the form of comment performances in seven instances and explicit comments in twenty-one instances by e.g. the wording "If 'Ann' is spelled /<a, n, n>/" or "/s:1 is spelled /<s, s>l.". As stated in chapter 3, the grammatical treatments involve an analysis, which presupposes a synthesis, because the analysis of major units (syllable, word, phrase or utterance) into minor units (letter, syllable, word or phrase) presupposes that these minor units can be synthesized to major units, i.e. the synthesis is inherent in the analysis. This is an operation that puts all the above mentioned main principles, i.e. the principles of duality of structure, invariance, linearity, and biuniqueness, into practice simultaneously. It can be performed by the child at very early stages as in the following observation:

Example 33. Child: 2 - 3·5 -- 3·8 - Boy

C. takes out books he has been read several times and reads (retells) them. When doing this he articulates each word very distinctly and sometimes with a noticeable division into syllables.

The principle of duality of structure is inherent in the explicit comment on linearity: "first /<j>/, and then /<e>/, /s/ comes next, then /<u>/, and then /<s>/, what comes next?: nothing more". The principle of invariance is present in the explicit comments on the letters' graphic shape (/<j, s>/), and dealt with in comment performances for the letters /<e, u, s>/ by going from the letter's name to its written shape. The principle of biuniqueness is dealt with in the metalanguage comment "How do you write Jesus?", the complete linearization, and the comment "Now it says Jesus". In the material the principle of biuniqueness takes the form of comment performances in thirteen observations and explicit comments in thirty observations. Expressions judged as explicit comments are:

- /<s, a, a, b>/ becomes Saab (11) (a Swedish car)
- /<k, a, v>/ it says "hav" (3) sea
- /<d, g>/ is "jag" (1) I

The child is simultaneously working on splitting the major units into smaller units and bringing these smaller units into a whole, although at this early age it is not done in terms of the alphabetic writing system, i.e. the units used are not letter-sounds. Henceforth this operation will be called synthesis-in-analysis. In four cases this operation is explicitly commented on using the phrase "sound (it (out))" (cf. Example 32), but it takes the form of a comment performance in ninety-five cases within the data.

The synthesis, on the other hand, presupposes the analysis, i.e. the synthesis of minor units into major units presupposes that these major units can be analysed to the minor units. The analysis is inherent in the synthesis. This operation, which in the same way as the operation synthesis-in-analysis applies all the earlier presented main principles, will henceforth be called analysis-in-synthesis. It is used in the blending together of letters given in the auditory or the visual medium. It takes
the form of explicit comments in eight cases by the wording: “blend to­
together” and comment performances in forty-nine cases.

Example 34. Child: 1 - 6:6 - Girl; Child: 2 - 4:4 - Boy
C2 is pretend-reading from a tool-box where it says: <LUNA>
1. C2: There it says workshop.
2. Cl: No, it says /l-j:-n-a/. In /v-a-r-k-s-t-a:-d”/ workshop
   there is an /r/,- so it cannot say workshop. Olle do you
   know how to read if it says /ca, b>/?
4. C1: Then you have to read their sounds /k, b™/ and blend
   them together /k-b™/ abu.

In this example the word ‘luna’ is treated by an analysis-in-synthesis
operation, i.e. a blending together of given letters, while the word
“verkstad” (repair shop) is treated by a synthesis-in-analysis operation,
 i.e. a sounding out of the word given by child no 2. The operations are
two different activities and it can not be assumed that knowing one
implies knowing the other. But, on the other hand, they are interrelated
on a logical level since the analysis and the synthesis presuppose one
another. Both of them also involve the operation of the four main
principles of the writing system. The operation of analysis-in-synthesis
does so unconditionally, while the operation synthesis-in-analysis does
not necessarily do so. The first is restricted to the blending together
of the units given in the writing system, i.e. the letters in the case of the
alphabetic writing system, to produce something that is not always
known beforehand. The second, on the other hand, involves in its more
rudimentary form a splitting up of a known word by using any type of
unit (cf. Example 33), and in its more advanced forms using letter units.
Thus, it is possible to upgrade the level of complexity in the second
which is impossible within the first. The analysis-in-synthesis could
therefore be said to constitute a more complex and demanding task
than the synthesis-in-analysis.

As was stated above the GMLAs can be found nearly exclusively in the
collective media, conversation, writing together, and reading together.
If we look at the grammatical metalanguage comments, in whichever
of the collective medium they can be found most frequently, salient
differences between different grammatical principles, and between
explicit comments and comment performances are found (see Table 11
below).

The principle of duality of structure, for which just explicit comments
have been coded, is put into practice in the media of reading and talking
together. The most frequent comment being about letters occurring in
words, read or talked about. Explicit comments belonging to the
principle of invariance can be found most often in the medium of
reading together, while the comment performances can be traced in the
medium of writing together. This pattern is found in all the principles
subordinated the principle of invariance, except in the case of explicit
comments on the graphic shape and the phonetic shape, and contrast
comments on units larger than the letter. The graphic shape of letters is
most often commented upon when writing together, while the other
two types of comment can be found most often in the medium of
conversation. Thus the principle of invariance is explicitly commented on
when reading, primarily, letters as such or when reading texts, but only
used in writing, except in the case of discussions of the graphic shape of
the letters.

The principle of linearity on the other hand can be traced most often in
conversations. If we look at the principle, and the tools subordinated
the principle, this statement holds true in all cases of comment perfor-
mances, except for the complete linearizations. These can be found
most often when reading together. In the case of explicit comments the
pattern looks somewhat different. Here it is just the incomplete linea-
rizations which can be found most often in conversations. The complete
linearizations can be traced as often in conversations as in writing
together. Explicit comments on the tools belonging to this main prin-
ciple are on the other hand most often made when reading together.
This is to a large extent due to an extensive use of the tool acrophony
when reading letters (see Example 28). The main pattern for the prin-
ciple of linearity is that incomplete linearizations are both discussed
and performed in conversations, while the complete linearizations are
discussed in both conversations and writing together, but just perform-
ed in reading together.

The principle of biuniqueness can be found nearly as often in all the
three types of collective media, except for the medium of reading to-
together which is not as frequently utilized in the case of comment per-
formances as the other two collective media. This principle could thus
be said to have a more universal application area than the other.
Table 11. Percentages of explicit comments and comment performances distributed over different kinds of physical/medial activity.

<table>
<thead>
<tr>
<th>EXPLICIT COMMENTS:</th>
<th>PHYSICAL/MEDIAL ACTIVITIES:</th>
<th>TOGETHER</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ALONE</td>
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<tr>
<td></td>
<td>speak</td>
<td>write</td>
<td>read</td>
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<td>duality of structure</td>
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<td>-</td>
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</tr>
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<td>invariance*</td>
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<td>-</td>
<td>0.4</td>
</tr>
<tr>
<td>linearity**</td>
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<td>-</td>
<td>4.5</td>
</tr>
<tr>
<td>biuniqueness</td>
<td>-</td>
<td>-</td>
<td>25.4</td>
</tr>
<tr>
<td>spelling rules</td>
<td>-</td>
<td>-</td>
<td>36.3</td>
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<tr>
<td>synthesis-in-analysis</td>
<td>-</td>
<td>-</td>
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<td>analysis-in-synthesis</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>-</td>
<td>0.2</td>
</tr>
</tbody>
</table>

| COMMENT PERFORMANCES: | TOGETHER | Total |
|                      | speak | write | read | speak | write | read |       |
| invariance*          | 1.0 | 5.2 | 6.2 | 26.8 | 37.1 | 23.7 | 100.0 |
| linearity**          | 1.7 | 1.7 | 5.1 | 49.2 | 16.9 | 25.4 | 100.0 |
| biuniqueness         | - | 7.7 | - | 36.2 | 30.8 | 15.4 | 100.0 |
| spelling rules       | - | - | 100.0 | 100.0 | 100.0 | 100.0 |
| synthesis-in-analysis | 4.2 | 11.6 | 9.5 | 31.6 | 34.7 | 8.4 | 100.0 |
| analysis-in-synthesis | - | - | 22.4 | 2.0 | 2.0 | 73.5 | 100.0 |
| Total                | 1.9 | 5.6 | 9.1 | 28.4 | 28.4 | 26.3 | 100.0 |

*Included in these figures are, in addition to activities that contain invariance comments, also activities that contain comments concerning phonetic value, graphic value, alternation, and contrast.

** Included in these figures are, in addition to activities that contain linearity comments, also activities that contain comments concerning acrophony, contraction, elision, intrusion, and commutation.

The spelling rules and the operation analysis-in-synthesis are strictly bound up with one medium respectively, both in the case of explicit comments and comment performances. The spelling rules are applied when writing together, i.e. discussing how to spell mainly unknown and not strictly phonologically spelled words, while analysis-in-synthesis is used when reading alone and most frequently when reading together. Analysis-in-synthesis, thus, is the operation for reading, blending the letters together to reach something meaningful, i.e. going from the secondary to the primary level\[^{51}\]. Synthesis-in-analysis is on the other hand the operation for writing, i.e. the operation for finding the units of the writing system\[^{52}\]. But this operation is also at work within the media of conversation and speaking alone. The way these features are utilized will be discussed more in the genre perspective and the pattern of action perspective.

Additional features.

In addition to the above presented grammatical features, fifteen features of less importance for the operation of the writing system are found in the material. They concern correctness, acceptability, different types of semantic and syntactic aspects and some other more general aspects of the linguistic study. The explicit comments on and comment performances on these different grammatical treatments are\[^{53}\]:

Acceptability (7):

'x'; is anything named 'x' / can (not) be said see Example 6: "Is there anything that is named like that?"

Analogy (1):

Example 35. Child: 1 - 6:7 - Girl
1. C: "I" is spelled just /<i>/. Just as "ö" and "å".

Appropriateness (1):

Example 36. Child: 1 - 6:7 - Girl
1. M: I think I will get "gansinnig". 
2. C: You do say "vansinnig".
3. M: Oh.
4. C: Yes. "Gansinnig" is just said by small children and perhaps by mummies and daddies who have small children who talk like that.

\[^{51}\]The operation analysis-in-synthesis should not be mixed up with the mental process called "top-down".

\[^{52}\]The operation synthesis-in-analysis should not be mixed up with the mental process called "bottom-up".

\[^{53}\]The total amount of the occurrences of comments in the material of the various grammatical features are given in parentheses.
Combination (1):

- See Example 18: "Libson" - "Wiklandson" - "Blomson"

Co-occurrence (1):

- See Example 18: "can also be said"

Correctness (8):

\[ x; \text{you do (not) say} \ x; \]

- See Example 36: "You do say "vansinnig"."

General grammar (3): ex:

Example 37. Child: 1 - 6:7 - Girl
1. C: His name is perhaps Nothing, just as Hai Shang's boy*. Nothing as a word, not as a meaning.
2. *a character from a book

Mental representation (1):

Example 38. Child: 1 - 7:1 - Girl
1. C: Do you know what a word is?
3. C: It is meaning.
4. M: Mmm.
5. C: Do you know what meaning is?
7. C: It is in the head.

Plain semantics (12):

\[ x \] means ...

Example 39. Child: 2 - 5:2 - Boy
1. C: "Rörmokare", 'mokare' what does that mean? plumber

Positional mobility (1):

Example 40. Child: 1 - 6:7 - Girl
In the car:
1. C: Who was that?
2. M: It was Jan Deborg.
3. C: Why is his name not Borgde?
4. M: Well ...
5. C: Probably it is because his name is Deborg. If your name is Deborg then you can't be named Borgde. Borgde. Borgde.

Presupposition (1):

Example 41. Child: 1 - 6:2 - Girl
1. Grown-up: Have you stopped sucking your thumb?
2. C: No. ... I have never started.

Selectional features (3):

Example 42. Child: 1 - 7:3 - Girl; Child: 2 - 5:1 - Boy
1. C2: The water is trying to fool me.
2. C1: Water is no human being. It can't fool you.

Semantic fields (1):

Example 43. Child: 1 - 6:2 - Girl
1. M: What kind of sandwich do you like most?
2. C: (silence, thinking?) Chocolate biscuits.
3. M: But they are not sandwiches!
4. C: But they are related anyhow.

Symmetrical relations (2):

Example 44. Child: 1 - 6:7 - Girl; Child: 2 - 4:5 - Boy
1. C2: If one (A) knows one (B) and he (B) doesn't know that one (A).
2. C1: It can't be like that, one (A) can not know one (B) and he (B) doesn't know that one (A).
3. M: How is it then?
4. C1: If that one (A) knows one (B) then that one (B) must know that one (A).

And finally there is an observation of how the children deal with the classic question of the origin of language, whether it is a divine creation or not.

Example 45. Child: 1 - 7:6 - Girl; Child: 2 - 5:4 - Boy
1. M: Now you are imitating. (hunting to C1)
2. C1: Olle is also imitating.
3. C2: I am imitating and you are imitating. We are all imitating. We are imitating each other's words because those have been given to us by God.
4. C1: Oh no, (C. laughs) we have made them ourselves.
5. C2: Well, but we are imitating each other.

These additional grammatical features will not be treated any further than this presentation of them, since they are considered of no substantial importance for learning how to read and write. Twenty-one of the original five hundred and one activities consist of just this kind of comment and are therefore left out of the following descriptions.
SUMMARY.

The children in this study participate in three types of language activity, which have been differentiated according to what topic they deal with. They are the object language activity (OLA; topic: different object language aspects; N=302), the metalanguage activity (MLA; topic: a dynamical language object; N=84), and the grammatical metalanguage activity (GMLA; topic: a static language object; N=281). The OLAs occur in the form of reading and writing. The reading together of letters, and the writing alone and reading together of names are the most common tasks performed in these activities. However, the questionable scribbling, graph-reading, and graph-writing have also been coded as OLA-reading and -writing. The reasons for this is that they emerge in the visual medium in a very similar manner to reading and writing performed by a developed reader and writer.

In his metalanguage comments the child also from time to time calls this type of activity reading and writing in the same manner as on other occasions he calls other types of reading and writing. That is, the child's conception of reading and writing varies over time and situations. In contrast to the OLAs and the GMLAs, the MLAs are mainly combined with another type of language activity, i.e. an OLA or a GMLA. This means that the child very seldom discusses his ability to use language per se, without showing some proof of it.

In the GMLAs the basic principles of the alphabetic writing system and of grammatical treatments are explicitly discussed and performed in the form of what in this thesis have been called explicit comments and comment performances. It is a distinction between the ability to say and to show. Furthermore, it is shown that these abilities are by necessity not related. But within the discussions between the parent and the child the abilities are very often connected. The grammatical treatments are primarily performed in the media of reading and writing. However, some of them are treated within the medium of conversation. That is, the treatment of the basic principles of the alphabetic writing system are not bound up with reading and writing. The language objects treated in the GMLAs coincide very much with the topics of the OLAs. That is, the most predominant language objects in the GMLAs are 'names' and 'letters'.

7. A GENRE PERSPECTIVE.

The outer or physical settings for all the activities described in the preceding chapter are infinitely varied. It is not possible to establish a pattern for when or where the child's interest in reading, writing, or discussing grammatical matters is aroused. The child puts forward his questions or statements at any time, in any setting during the day.

Example 46. Child 6 - 5:1 - C

In the morning before anybody else has woken up except C. (and by that time F).
1. C: Eva begins with /<e>/.
2. F: Yes!

Here we will focus on the linguistic texts for the activities. It is a way of dealing with the observations according to the type of texts read, written, and produced in the activities. Firstly, the kind of texts read and written will be described. Secondly the spoken texts, i.e. texts produced in the activities of speaking alone, speaking together, shared reading, and shared writing, will be described.

TEXTS USED AND PRODUCED IN WRITTEN LANGUAGEING.

The perspective.

A text concerning a certain subject can be described with respect to the kind of grammatical unit it embraces. It can be placed on a continuum which reaches from texts that consist of elliptical expressions (words, phrases, incomplete sentences, and clauses), i.e. an implicit and fragmentary text, to texts with explicit references, strong cohesion, and complex syntax. This last type of text is furthermore usually characterized by an introduction to the subject to be dealt with and further information about the subject where premises, conclusions, generalizations, and connections are explicitly stated. In normal daily languageing on equal terms, the first type of text is produced or occurs in situations where the participants' knowledge of the subject and the situation is shared, while the second type is produced or occurs in

54 Cf. "decontextualized" language.
situations where the participants' knowledge of the subject and the situation is not shared. The first type of text is usually connected with spoken language while the second is connected with written language. But in actual language use both these types of text and interjacent forms can occur in spoken language as well as in written language. These forms of language use can thus be described with two independent variables, on the one hand a medium aspect, and on the other hand an aspect of language form. Such a description gives rise to four different main types of language use (see Table 12).

Table 12
Different types of language use with respect to form and medium aspects.

<table>
<thead>
<tr>
<th>LANGUAGE FORM ASPECT</th>
<th>MEDIA ASPECT</th>
<th>auditory</th>
<th>visual</th>
</tr>
</thead>
<tbody>
<tr>
<td>colloquial language</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>(interjacent forms)</td>
<td>/</td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>formal language</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

1. colloquial language in the auditory medium,
2. colloquial language in the visual medium,
3. formal language in the auditory medium,
4. formal language in the visual medium.

The texts read and written in the data material will be described according to the kind of text type in the above sense they belong to. Grammatical units that are read or written are scribbles, letters, words, phrases, clauses, complex sentences, simple coherent texts, or complex coherent texts. By a simple coherent text will be meant in this analysis a text consisting of at least two but not more than three simple or complex sentences which constitute a coherent text. A complex coherent text is a text that goes beyond the limits set for the simple text. These two last types will be considered as simple respectively more complex types of formal language, while the other types are treated as colloquial language forms. The texts read or written will furthermore be described with respect to what kind of text they consistute, e.g. signs, labels, post cards, books, and so forth.

The data.
In the four hundred occurrences of written texts in the data, two hundred and twenty-six read and one hundred and seventy-four writ-

ten, the word and the letter are the predominant grammatical units dealt with (see Table 13). The distribution between the two is almost the same in reading (letter: 24%; word: 47%) as in writing (letter: 20%; word: 55%). The act of reading together is the most prominent activity type employed, followed by writing together, writing alone, and reading alone in that order. The word and the letter are furthermore not only read and written in texts as abc-posters and “one-word-signs”, but they are dealt with in all the different types of texts. It is thus possible, and actually occurs especially in the children's reading activities, that a smaller grammatical unit is picked out from a larger one and dealt with.

The other way around would seem impossible to accomplish, a circumstance which is illustrated for all the different grammatical units in Table 13 except in some instances. Thus, it is challenged in this data by e.g. the children's graph-writing and the parents' reading out “words” in this type of writing (cf. Example 6).

Table 13
Total percentages of grammatical units read and written in different types of written texts.

<table>
<thead>
<tr>
<th>GRAMMATICAL UNITS READ AND WRITTEN</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>scribbles</td>
<td>15</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.5</td>
<td>-</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>letters</td>
<td>-</td>
<td>14.3</td>
<td>4.8</td>
<td>1.0</td>
<td>-</td>
<td>0.8</td>
<td>1.3</td>
<td>0.5</td>
<td>22.5</td>
</tr>
<tr>
<td>words</td>
<td>-</td>
<td>0.3</td>
<td>45.0</td>
<td>1.5</td>
<td>2.8</td>
<td>0.3</td>
<td>0.5</td>
<td>-</td>
<td>50.3</td>
</tr>
<tr>
<td>phrases</td>
<td>-</td>
<td>-</td>
<td>2.0</td>
<td>0.3</td>
<td>3.0</td>
<td>1.5</td>
<td>0.3</td>
<td>-</td>
<td>7.0</td>
</tr>
<tr>
<td>clauses</td>
<td>-</td>
<td>-</td>
<td>0.5</td>
<td>-</td>
<td>2.5</td>
<td>1.0</td>
<td>0.5</td>
<td>-</td>
<td>4.5</td>
</tr>
<tr>
<td>sentences</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.3</td>
<td>-</td>
<td>1.0</td>
<td>-</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>simple texts</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.0</td>
<td>1.5</td>
<td>1.0</td>
<td>-</td>
<td>-</td>
<td>3.5</td>
</tr>
<tr>
<td>complex texts</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2.3</td>
<td>6.0</td>
<td>-</td>
<td>8.3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1.5</td>
<td>14.5</td>
<td>53.0</td>
<td>2.8</td>
<td>9.5</td>
<td>7.3</td>
<td>11.0</td>
<td>0.5</td>
<td>100.0</td>
</tr>
</tbody>
</table>

* Type of written texts:
A = scribbles
B = abc-poster, graph-writing, written letters
C = signs, labels, crossword, word lists (name-, shopping-, and so forth;
lists of presents one would like for one's birthday)
D = addresses, dates, posters, advertisements
E = headings, titles, greeting cards, sentence lists
F = post cards, messages, picture books
G = letters, comics, newspapers, reports, stories, books
H = not a text in a traditional sense, e.g. a tube formed like the letter <M>
The intermediate units, i.e. the phrase, the clause, the sentence (see Example 49 below), and the simple text, are more evenly distributed over the reading and writing activities. The other six grammatical units occur to a much lesser extent. The third most frequently occurring grammatical unit, the complex text, is most often read alone (in 64% of the cases; see Example 3), but never written alone. The next example is an instance of where a complex text is written together with somebody else.

Example 47. Child: 1 - 7:5 - Girl
C. has written a postcard to her friend and has received some help from her mother.
"HEJ EVA. JAG HAR DET BRA. HUR MÅ - I RDU (1)? IGAR KÖPTE I JAG EN KANIN I GLASS. MEN DEN VAR FÖR VATTNING. I GÅR REGNADE DET (2) I JAG GLÖMD (3) MIT (4) KAR - I OLA BAND. HEIDÅ (5) EVA I HLSNING (6) ANNA >** Hallo Eva. I am having a nice time. How are you? Yesterday I bought a rabbit ice cream. But there was too much water in it. Yesterday it rained! I forgot my Car - i ola tape. Bye Eva! Greetings Anna
* Underlined words or parts of words have been discussed with regard to their spelling. Numbered structures are wrong from a grammatical perspective. The correct forms are indicated below.
(1) "MÅ-RDU" --> "mår du" (how) are you
(2) "DE" --> "det" it
(3) "GLÖMD" --> "glömde" forgot
(4) "MIT" --> "mitt" my
(5) "HEIDÅ" --> "hej då" bye
(6) "HLSNING" --> "hålsning" greetings

Furthermore, writing scribbles is more frequent than reading them, writing alone being the most frequently employed act. The scribbles have moreover on some occasions the appearance of a real text and are also treated as such in the reading of them, such as a shopping list or a song text.

Example 48. Child: 4 - 4:2 - Girl
1. C: Do you know "A lot of fun every day"?*
3. C: Shall I write it for you? (C. "writes" on a very small scrap.)
4. M: But I can’t read what you have written.
5. C: I can read it. (C. "reads" a long part of it.)
*a self-invented song

The texts in the material have furthermore been divided into four different groups according to the kind of topics they deal with55. The first group of topics deals with those that are judged to be concrete and part of the immediate surroundings for all the participants of the communication. Topics belonging to this group are ‘persons’, ‘food’, ‘places’ (names of stores and other types of official buildings in the immediate surrounding), ‘household utensils’, ‘conveyances’, ‘animals’, ‘toys/games’, and ‘other’. The second group deals on the other hand with topics that are judged to be abstract or not part of the immediate surroundings for all the participants in the communication, i.e. mediated topics. This group consists of the topics ‘social relations’, ‘places’ (addresses, names of towns, countries, i.e. places which are not a part of the immediate surroundings), ‘activities’, ‘personal feelings’, and ‘date’. The third group consists of the topic ‘letters’, which has been given a group of its own since its value according to the two above given criteria varies from situation to situation. The last group consist of the ‘unspecified’ topics, which also have been given a group of their own since it is not possible to give any of the above discussed values to them.

From Table 14 below it is possible to draw some conclusions. Topics that are judged to be concrete and immediate are more often dealt with by smaller grammatical units than by larger grammatical units. Furthermore the reading and writing of grammatical units larger than

55Cf. the topics presented in chapter 6.
the word deal more often with abstract topics or mediated topics than with concrete and immediate topics. If the unspecified topics are considered to follow this tendency, as they could be presumed to do, notwithstanding the sparse information that is given in the observations, it will be even more pronounced.

Table 14. Total percentages of grammatical units read and written concerning different types of topics.

<table>
<thead>
<tr>
<th>GRAMMATICAL UNITS READ AND WRITTEN</th>
<th>concrete and immediate</th>
<th>abstract or mediated letter</th>
<th>unspecified</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>scribbles</td>
<td>0.5</td>
<td>-</td>
<td>2.3</td>
<td>2.8</td>
</tr>
<tr>
<td>letters</td>
<td>0.3</td>
<td>22.2</td>
<td>-</td>
<td>22.5</td>
</tr>
<tr>
<td>words</td>
<td>40.4</td>
<td>4.9</td>
<td>0.8</td>
<td>4.2</td>
</tr>
<tr>
<td>phrases</td>
<td>2.6</td>
<td>4.1</td>
<td>-</td>
<td>7.0</td>
</tr>
<tr>
<td>clauses</td>
<td>1.3</td>
<td>1.7</td>
<td>-</td>
<td>4.5</td>
</tr>
<tr>
<td>sentences</td>
<td>0.3</td>
<td>1.0</td>
<td>-</td>
<td>1.3</td>
</tr>
<tr>
<td>simple texts</td>
<td>1.2</td>
<td>1.5</td>
<td>-</td>
<td>3.5</td>
</tr>
<tr>
<td>complex texts</td>
<td>1.7</td>
<td>0.3</td>
<td>-</td>
<td>8.3</td>
</tr>
<tr>
<td>Total</td>
<td>48.3</td>
<td>13.5</td>
<td>23.0</td>
<td>15.4</td>
</tr>
</tbody>
</table>

The language use in reading and writing could be said to be dominated by an extremely colloquial form, where the topics are to a large degree concrete and immediate. A majority of this type of written text are, literally speaking, language labels of the immediate surroundings. Some of the written texts, though, take the form of formal language. In these instances the topics can most often be characterized as being either abstract or mediated.

TEXTS PRODUCED IN SPOKEN LANGUAGEING.

The perspective.

The spoken texts produced in the acts of speaking alone, the conversations, and the activities of reading and writing together cannot, on the other hand, be analysed in a narrow grammatical sense, since the quality of the observations concerning this aspect is certain. Instead they will be described according to how many comments and what type of comments, comment performances or explicit comments, can be found in them. A tripartite division will be made of the spoken texts. The analysis will be founded on a characterization consisting of the following possible alternatives for the three different text types, respectively:

Table 15. Three types of spoken texts.

<table>
<thead>
<tr>
<th>Text type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>(x) 1</td>
<td>(x) 1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>II</td>
<td>(x) &gt;1</td>
<td>(x) 1</td>
<td>1 (21)</td>
<td>1 (21)</td>
</tr>
<tr>
<td>III</td>
<td>(x) &gt;1</td>
<td>(x) &gt;1</td>
<td>&gt;1 (21)</td>
<td>&gt;1 (21)</td>
</tr>
</tbody>
</table>

A = reading or writing, without any comments
B = amount of different* metalanguage comments
C = amount of different* grammatical metalanguage explicit comments
D = amount of different* grammatical metalanguage comment performances

Optional elements are put in parenthesis.

* Two or more comments belonging to the same category of MLA or to the same main grammatical principle, i.e. to the same aspect of a topic, will be counted as one occurrence.

The three text types constituted this way will be called, starting with the least complex type, intervention-text (I), commentary-text (II), and story-text (III)56. The texts will also be classified according to what the main task or topic of the interaction is. They will in this manner be named according to what kind of OLA, metalanguage comment, or grammatical metalanguage comment dominates the text.

The data.

The spoken texts, i.e. texts produced in acts of speaking alone, in conversation, and in shared reading and writing activities, amount to three hundred and fifteen57. The most frequently discussed topic or performed task in these activities is the act of reading something (see

57 These are the three hundred and thirty-six activities presented in Table 2.2. minus the twenty-one activities that concern features considered to be of no substantial importance for learning how to read and write.
The most comprehensive form of a reading text is the so-called reading story. In the next example such a reading story is shown, where all the four main principles are at work, and in this observation the child manages to perform them almost by herself with the help of her mother as a guide and a prompter.

Example 50. Child: 3-4:8 - Girl
C. has discovered letters on M's sweater, where it says “SALASKOLAN”.
1. C: What does it say there?
2. M: (just showing the first two letters “SA”) What letters do you see?
3. C: /S/ and /A/.
4. M: How do the letters sound?
5. C: /s, ː/.
6. M: Blend them together then!
7. C: /sː,:/ (C. whispers this several times)
8. M: Good! That's right! What did it become then?
9. C: “Sa”.
10. M: Good! Now you know how to do it! And then?

Then the child and her mother go on and add parts of the word that make sense and in the end they have put together the whole word. In the margin of the observation paper the mother has written that this is the first time that the child has been able to blend the letter-sounds together and to read a written word this way. The principle of invariance is treated by the joint explicit comments “you /I see the letters /<s>/ and /<a>/” and “the letters sound /s, ː/”. Taking the letters in the right order is a comment performance on the principle of linearity. This first part of the dialogue ends with the explicit comment on the principle of biuniqueness: “it becomes “sa””. These three principles and the principle of duality of structure, which is inherent in the three principles, are also manipulated by the process of analysis-in-synthesis in the explicit comment: “blend them together: /sː,:/”.

The act of reading is discussed a little less thoroughly in the commentary-texts. In the following observation the reading is performed by a comment performance on analysis-in-synthesis, and accompanied by an explicit comment on the principle of biuniqueness.

Example 51. Child: 1-6:7 - Girl
C. looks at the sign on the top of a cab saying: “TAXI”.
1. C: Mummy, what does it say? It just looks like /tː-kː-iː:/ to me**.
*The correct pronunciation is with a short /a/.
**A literal translation of this sentence would be “To me it just becomes /tː-kː-iː:/”, in which the explicit comment on the principle of biuniqueness ‘it becomes’ is found.

Most often, however, the reading texts take the form of an intervention-text as in the next example:

Example 52. Child: 5-5:9 - Boy
C. is looking at a world map. The blending together works fine, but the stress is most often put in the wrong place. He reads the following words:
“SOVJET-UNIONEN; SIBIRIEN; KINA; ISHAVET; Europa; ATLANTEN; OCEANEN; INDISKA”
Soviet Union; Siberia; China; the Arctic Ocean; Europe; the Atlantic; Ocean; the Indian

In one third of the reading texts the reading is accompanied by the comment “it says ..” and in some few instances by the metalanguage comment “I’m reading ..”.

A parallel case to the reading texts are the writing texts. Example 32 is a typical scene from a so-called writing story, i.e. a story of how to do writing. In helping his son to write the name Jesus, the father is the initiator of all four main grammatical principles and also of the process of synthesis-in-analysis, in which the four principles are manipulated simultaneously. The responsibility for finding the right letter-sounds in the right order, their corresponding graphs and their shapes, and knowing when to stop, rests with the father. But he is doing what he can to involve his son in these acts.

The writing texts also take the form of a commentary-text as in the next example, in which the child completes the principle of invariance all by herself, after the mother has pronounced the sounds of the letters.
In the next example the child is producing a spelling commentary-text on her own, which from a grammatical point of view is not correct, but this divergence from the norm is not commented on by the parent of the child.

The advantage of the reading and writing texts over the biuniqueness texts, the spelling texts and the texts of synthesis-in-analysis is that the shape of the letters is shown and may be discussed and further, the convention for the left-to-right direction of writing is so to speak visible.

Example 56. Child: 4 - 4:4 - Girl
C’s little brother (6 months old) has made a cry which sounded like “aj”.

1. C: When you are going to write “aj”, you write /<a>/.
2. M: Yes, it does! What do you think it begins in?
3. C: /<t>/, /<o>/, it begins with.
4. M: Well, not really, but /<o>/ is there.
5. C: /<t>/.
7. C: /<t>/.
8. M: Yes, and then /<r>/.
9. C: /<r>/.
10. M: Yeah, good! And then /<ö>/.
11. C: /<t>/.
(Then C. and M. go on in the same fashion through the whole word.)

*The Swedish word “tröktigt” is a dialectal form of the standard form “tråkigt”.

The spelling texts never occur in the data in the form of intervention-texts, but this is on the other hand the only form for the occurrence of the texts of synthesis-in-analysis. The four texts on the topic synthesis-in-analysis that are found in the data always appear in the medium of speaking alone.

Example 57. Child: 1 - 6:10 - Girl
C. is in bed and is about to fall asleep, but plays around with her own name, as if she was tasting it.

1. C: /<a-t-a>/.
2. M: What do you think it begins in?
3. C: “Gata”.
4. M: When you are going to write “aj”, you write /<a>/, /<k>/, /<n, m, t, ...>/.
5. C: tells same more different letters but not /<ö>./; while C. is telling the letters she waves with her hand in the air: writing??

The spelling texts never occur in the data in the form of intervention-texts, but this is on the other hand the only form for the occurrence of the texts of synthesis-in-analysis. The four texts on the topic synthesis-in-analysis that are found in the data always appear in the medium of speaking alone.

Example 58. Child: 2 - 5:9 - Boy
The advantage of the reading and writing texts over the biuniqueness texts, the spelling texts, and the texts of synthesis-in-analysis is that the shape of the letters is shown and may be discussed and further, the convention for the left-to-right direction of writing is so to speak visi-
ble. Within the material there are interestingly enough neither any comments on this convention nor any corrections if the child breaks it when writing.

In all these five text groups some or all of the main grammatical principles have been at work on more or less equal terms. In the groups to be presented just one grammatical feature constitutes the main topic, while in the case where other features can be found they are there more or less as an extra support or in some instances as an adornment.

The principle of duality of structure has in some occurrences its own texts in the medium of conversation. A story-text with this main topic has been shown in Example 17. Child no 2 is in this observation giving explicit comments both on the principle of duality of structure and the principle of invariance concerning the sound /o:/ in the word 'Renaunt'. In the next example a commentary-text of this kind is presented.

Example 58. Child: 3 - 4:5 - Girl
1. C: Is there an /<h>/ or an /<m>/ in “Lilla My”.
2. M: /<m>/, Lilla /m-/y/.
*a character from a book

The largest of these text groups are the so-called invariance texts, which appear most frequently in the acts of reading together. An instance of this text group is found in Example 28, which is a highly elaborated invariance story where not only the letters' names are discussed but also their graphic and phonetic shapes and in what words they constitute the first part. In Example 19 and Example 26 a commentary-text and an intervention-text, respectively, on the same main topic are found.

The principles of alternation and contrast constitute the main topic in some observations. The alternation texts take only the form of a commentary-text in the data. An instance of such a text is provided in Example 24 where the father and his son discuss whether the words 'Grants' and 'Blomkrans' are the same or not. On the other hand, the contrast texts, which occur in only three instances, take only the form of a story-text. Example 30, where the mother is trying to get her son to find out what the contrast between the names Korak and Orak is, provides an instance of this kind of text.

The principle of linearity is the main topic in a little more than half as many instances as the principle of invariance. These texts only concern incomplete linearizations. The complete linearizations belong with the reading, writing, spelling and biuniqueness texts. Thus the incomplete linearizations have their own text group. In the data they can never be found in the form of an intervention-text. Most of them appear in the medium of conversation. The following dialogue is an example of a linearization story:

1. C: Bolla and Bill. It goes well together. Which letter does Bill begin with?
3. C: Then Bolla must also begin with /<b>/.
C. and M. go on and talk about other names and words that begin with /<b>/.

A commentary-text on linearization is found in Example 2, where once again the beginning of a word is treated by the explicit comment on the principle of linearity: "potato begins with /<p>/".

In the data some few instances of texts are found that concern the tools elision, acrophony, commutation, and intrusion. The first two text topics usually take the form of a riddle or a game, as in the case of the biuniqueness texts:

Example 60. Child: 10 - 4:3 - Girl
1. C: How does it sound if you take away /<k>/ in Klara?
C. goes on and takes away one letter at a time and she wants M. to tell how it sounds. She does the same with the names of all members of her family.

Example 61. Child: 3 - 4:6 - Girl
1. C: Say a word that begins in /<f>/!
2. M: "/f-isk/"
3. C: Now it's my turn!
Then M. asks the question and they continue in this manner for several more words.

The story-text concerning commutation is found in Example 31, in which child no 5 first takes away an /<s>/ from the word "buss" and then puts in an /<l>/.

Example 62. Child: 2 - 5:2 - Boy
In bed: C. and M. have been discussing the meaning of the word "nyss".
1. C: (silent to himself) "Nyss, nyss, nystan." just now, just now, spool
Table 16. Total percentages of different types of spoken texts distributed over different types of text topics.

<table>
<thead>
<tr>
<th>TEXT TOPIC</th>
<th>TEXT TYPE:</th>
<th>intervention text</th>
<th>commentary text</th>
<th>story text</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>reading</td>
<td></td>
<td>14.6</td>
<td>1.9</td>
<td>3.5</td>
<td>20.0</td>
</tr>
<tr>
<td>&quot;I'm reading ..&quot;</td>
<td></td>
<td>1.3</td>
<td>-</td>
<td>0.6</td>
<td>1.9</td>
</tr>
<tr>
<td>&quot;It says ..&quot;</td>
<td></td>
<td>8.9</td>
<td>1.9</td>
<td>0.3</td>
<td>11.1</td>
</tr>
<tr>
<td>biuniqueness</td>
<td></td>
<td>0.3</td>
<td>0.6</td>
<td>-</td>
<td>1.0</td>
</tr>
<tr>
<td>writing</td>
<td></td>
<td>10.8</td>
<td>5.7</td>
<td>6.0</td>
<td>22.5</td>
</tr>
<tr>
<td>&quot;I'm writing ..&quot;</td>
<td></td>
<td>0.6</td>
<td>0.3</td>
<td>-</td>
<td>1.0</td>
</tr>
<tr>
<td>spelling</td>
<td></td>
<td>-</td>
<td>2.2</td>
<td>3.2</td>
<td>5.4</td>
</tr>
<tr>
<td>synthesis-in-analysis</td>
<td></td>
<td>1.3</td>
<td>-</td>
<td>-</td>
<td>1.3</td>
</tr>
<tr>
<td>duality of structure</td>
<td></td>
<td>-</td>
<td>1.0</td>
<td>1.3</td>
<td>2.2</td>
</tr>
<tr>
<td>invariance</td>
<td></td>
<td>4.1</td>
<td>9.2</td>
<td>5.4</td>
<td>18.7</td>
</tr>
<tr>
<td>alternation</td>
<td></td>
<td>-</td>
<td>1.9</td>
<td>-</td>
<td>1.9</td>
</tr>
<tr>
<td>contrast</td>
<td></td>
<td>-</td>
<td>-</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>linearization</td>
<td></td>
<td>-</td>
<td>5.1</td>
<td>3.5</td>
<td>8.6</td>
</tr>
<tr>
<td>elision</td>
<td></td>
<td>0.3</td>
<td>0.6</td>
<td>-</td>
<td>1.0</td>
</tr>
<tr>
<td>acrophony</td>
<td></td>
<td>0.6</td>
<td>0.6</td>
<td>-</td>
<td>1.3</td>
</tr>
<tr>
<td>commutation</td>
<td></td>
<td>0.6</td>
<td>-</td>
<td>0.3</td>
<td>1.0</td>
</tr>
<tr>
<td>intrusion</td>
<td></td>
<td>0.3</td>
<td>-</td>
<td>-</td>
<td>0.3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>43.8</td>
<td>30.5</td>
<td>25.7</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The four main principles of the writing system and their auxiliary principles and tools thus have their own texts, as distinct from reading, writing, and spelling, in addition to their traditional place within these texts. This is more so for the principles of invariance and linearization than the others. A little more than half of the invariance-comments are used within the invariance text, which in everyday language would be called letter-recognition situations. Almost all the explicit comments (88%) on this principle can be traced in this last mentioned type of text, while only one third of the comment performances are found here. The letters, thus, are explicitly commented upon not only in the traditional type of letter-recognition situations, but also to some extent in the spelling, writing or reading texts. But the comment performances involving the principle of invariance, are mainly found within these last types of texts. The explicit comments involving the principle of duality of structure accompany in most cases explicit comments involving the principle of invariance, since these comments tend to be used as a way of identifying letters. They primarily occur in the letter-recognition situations and to some extent in the duality of structure texts, the writing, reading and spelling intervention texts, the spelling texts, and the linearization texts.

The last mentioned text type accounts for more than a quarter of all the comments involving the principle of linearity, of which all take the form of explicit comments, i.e. explicit comments on incomplete linearizations. The principle of linearity has, as the principle of invariance, a special text in which it is explicitly commented upon and another type in which it is both explicitly commented upon and performed, which is the reading, writing and spelling texts.

Comments on the complete linearization are most common within the spelling, writing and reading texts. These texts are therefore also the predominant texts for the principle of biuniqueness, since complete linearization is a prerequisite for the use of the principle of biuniqueness. The process of analysis-in-synthesis, i.e. the blending of letters, is found almost exclusively within the reading text, while the process of synthesis-in-analysis, i.e. the sounding out of a linguistic expression, is in most instances used within the writing texts.

The information-dense texts.

Thus, the writing, reading and spelling story-texts are the most information-dense texts, with regard to the amount of different grammatical features treated. The most information-dense of these is the writing story-text, in which the principles of invariance, linearity (both complete and incomplete treatments) and graphic shape, the operation synthesis-in-analysis, and spelling rules are found. In second place come the spelling and reading story-texts. The principles of invariance, linearity (complete treatments) and biuniqueness, and the operations synthesis-in-analysis and analysis-in-synthesis are treated at the same time in these texts. The reading and writing intervention-texts, on the other hand, consist either of reading and writing without any grammatical treatment, or of the operations analysis-in-synthesis and synthesis-in-analysis, respectively. The commentary-texts are found somewhere in between these two types with regard to information density. The other text topics are much less information-dense, in this sense, since they are by definition dominated by their own grammatical feature.

In Table 17, below, it can be seen that the information-dense reading and writing story-texts deal mainly with the written unit word, all
though the unit letter is dealt with in the invariance texts while the unit word is treated in the reading and writing texts. In contrast to the unit word, the overall dominating form for treatments of the units scribbles and units larger than the word is the intervention-text.

Table 17.
Total percentages of different types of grammatical units (read and written) occurring in different types of spoken texts in the media reading and writing together.

<table>
<thead>
<tr>
<th>GRAMMATICAL UNITS READ AND WRITTEN:</th>
<th>SPKEN TEXT TYPE:</th>
<th>Intervention text</th>
<th>Commentary text</th>
<th>Story text</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MEDIUM</td>
<td>MEDIUM</td>
<td>MEDIUM</td>
<td>MEDIUM</td>
<td></td>
</tr>
<tr>
<td>scribbles</td>
<td>0.8</td>
<td>0.4</td>
<td>-</td>
<td>-</td>
<td>1.6</td>
</tr>
<tr>
<td>letters</td>
<td>6.4</td>
<td>2.6</td>
<td>7.2</td>
<td>4.3</td>
<td>7.2</td>
</tr>
<tr>
<td>words</td>
<td>16.6</td>
<td>9.8</td>
<td>6.8</td>
<td>6.4</td>
<td>6.0</td>
</tr>
<tr>
<td>&gt; words</td>
<td>11.1</td>
<td>3.8</td>
<td>-</td>
<td>1.3</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>34.9</td>
<td>16.6</td>
<td>14.4</td>
<td>12.4</td>
<td>13.2</td>
</tr>
</tbody>
</table>

Furthermore, if the story-text and the commentary-text are looked at as the texts for explicit grammatical discussions, while the intervention-text is looked at as the text for the use of acquired knowledge, it may be concluded that when grammatical information is discussed the less complex written units are used. And when the reading and writing consist of just reading and writing, or the treatment of all the basic principles of the alphabetic writing system simultaneously in the operations analysis-in-synthesis and synthesis-in-analysis, more complex units are also at stake. It may also be concluded that a simpler grammatical unit, such as the letter, is more often explicitly discussed from a grammatical perspective in the act of reading than in the act of writing, while the more complex units, larger than words, are discussed in this way exclusively in the act of writing. The intermediate unit, the word, is treated in this way as often in reading as in writing. But the employment of acquired knowledge can be found primarily in reading. In this way, it may be stated that the prime place for discussion of the grammatical technique in a functional setting, in languageing within the visual medium, is the information-dense "writing story-text", and also the "writing commentary-text", while the prime place for using this acquired knowledge in a functional setting is the "reading intervention-text", and also within the medium of reading alone.

**SUMMARY.**

In this chapter it is shown that the reading and writing acts primarily concern very simple texts from a grammatical point of view. The written texts used and produced consist mainly of the grammatical unit 'word'. Furthermore, these simple texts for the most part concern topics that are concrete and taken from the immediate surroundings. That is, an extremely colloquial written language form is used in the child's early reading and writing.

The texts produced in spoken languageing are categorized in three groups. They are the intervention-text, the commentary-text, and the story-text. The first type is the least elaborated and the last is the most elaborated with respect to how many different metalanguage comments and grammatical metalanguage comments reside in them. These spoken texts mainly concern how to perform the reading and writing acts, where many of the principles of the alphabetic writing system are discussed and/or performed. But these principles are also discussed and/or performed in feature-specific texts. The most commonly occurring of these feature specific texts are the invariance texts and the linearization texts. However, the most informative texts with regard to the amount of principles discussed and performed are the reading and the writing story-texts. The writing story-text is the absolutely most information-dense text. It is also used as the prime learning center for the grammatical treatments of written texts, especially when these written texts exceed the limits of the grammatical unit 'word'.
8. A PERSPECTIVE OF PATTERN OF ACTIONS.

In the perspective of the language act, the activities were described as consisting either of those called object language acts, which consisted of reading and writing, or those called grammatical metalanguage acts, which treated language as a static object and made an inquiry into the principles of the alphabetic writing system. In the genre perspective, the texts read and written and the spoken texts for the occurrences of the principles of the alphabetic writing system were displayed. In many of the examples presented within the description of these perspectives it has been elucidated that the reading, writing, and grammatical metalanguage activities are acted out in different ways on different occasions. The main concern of the perspective of patterns of actions is to describe the child's participation concerning type of activity and what his contributions are. First the reading and writing acts will be classified in different categories. Then the grammatical comments will be analysed according to the way in which the child is able to contribute to them.

THE READING AND WRITING ACTS.

The perspective.

In chapter 5 the different activities occurring in the data were divided according to their physical/medial outlook. In this perspective the reading activities and the writing activities, respectively, are brought together through the criteria of medium and type of physical instruments that are crucial for the accomplishment of the activities. This way of looking at reading and writing has in many instances challenged our common sense conception of what reading and writing are. Furthermore, from the different examples given above it is obvious that what can be considered to be reading and writing differs between different children and also between different occasions. The physical /medial criterion, thus, is a necessary condition in order to differentiate between reading and writing, but not a sufficient condition in order to differentiate between types of reading and writing. As a result of this we will enter more deeply into this question by using five additional criteria in order to differentiate and define different types of reading and writing acts. The criteria are:

1. type of language activity:
   whether the reading or writing constitute an OLA, or a GMLA
2. grammatical correctness:
   whether the reading or the text written is correct or permissible from a grammatical point of view.
3. text-knowledge:
   whether the actor has a previous experiences of the text as such, or not
4. knowledge of the setting:
   whether the actor has previous experiences of the setting in which the actual text occurs, or not
5. reading and writing actors:
   whether the reading and writing acts as such are performed by one person, or whether they are performed by two or more persons together.

In addition, the reading and writing acts classified in accordance with these criteria will be described with respect to what topics and grammatical units they deal with, and furthermore to what type of medium and spoken text they occur in.

The data.

In Table 18 different types of reading and writing behaviour that can be identified with respect to the five criteria presented above can be found. Within the data there are furthermore some instances of reading and writing acts that it is not possible to describe according to all the five criteria, since the description made by the parent is too brief. These types of activities will be treated separately under the heading unidentified reading and writing. In the presentation the reading and writing of letters as such and the reading and writing activities executed by the adult alone are excluded.

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60 Considered here are not the metalanguage acts, since they are neither involved in the reading or writing acts, nor in the discussion of the principles of the alphabetic writing system.
Table 18. Different types of reading and writing acts defined by means of the five criteria: language activity, grammatical correctness, text-knowledge, knowledge of the setting, reading and writing actors.

<table>
<thead>
<tr>
<th>READING &amp; WRITING</th>
<th>CRITERION:</th>
<th>language activity</th>
<th>grammatical correctness</th>
<th>text-knowledge</th>
<th>knowledge of the setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>OLA</td>
<td>**</td>
<td>no</td>
<td>no/yes</td>
<td>1</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>D</td>
<td>MLA</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>1</td>
</tr>
<tr>
<td>E</td>
<td></td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td></td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>2</td>
</tr>
<tr>
<td>G</td>
<td></td>
<td>yes/no</td>
<td>no/yes</td>
<td>no/yes</td>
<td>1</td>
</tr>
<tr>
<td>H</td>
<td></td>
<td>yes/no</td>
<td>no/yes</td>
<td>no/yes</td>
<td>1</td>
</tr>
<tr>
<td>I</td>
<td>OLA</td>
<td>yes</td>
<td>no/yes</td>
<td>no</td>
<td>1</td>
</tr>
</tbody>
</table>

* Numbers not applicable

A = pre-reading and pre-writing
B = reading by the setting and copy-writing
C = whole-word reading and whole-word writing
D = reading by the setting with sounding out
E = whole-word reading with sounding out and whole-word writing with sounding out or "lettering"
F = reading and writing from dictation with help of the four main principles of the alphabetic writing system
G = analysis—recoding
H = analysis—in-synthesis—recoding, synthesis—in-analysis—recoding
I = plain reading
* unidentified reading and writing
* adult reading and writing

** not applicable

Pre-reading (N=27) and pre-writing (N=25).

The first category of reading and writing acts to be described, thus, parts with all the other types because it is not possible to describe the acts from a grammatical perspective. The product of the reading and writing acts stand in a fortuitous relation to what, from a grammatical point of view, is written or said to be written. But from a physical point of view, the acts of pre-reading and pre-writing are performed just like ordinary reading and writing, because the actor is holding a book/pencil, looking at the page, writing letters or letter-like figures, turning pages, and so forth. He pretends he is reading and writing, it is make-believe reading and writing. It is called pre-reading and pre-writing, respectively, since from a developmental perspective it is considered to be a forerunner to the other types of reading and writing that will be presented below. The acts are carried out by a single actor. They constitute OLA, in which the actor has no knowledge of the text as such, but where the setting may be known.

In some instances in the data material these OLA are accompanied by a MLA. In these instances the MLA seems to serve the function of the wizard’s magic wand converting the imaginary reading or writing act into a real act. This is an interpretation which derives its inspiration from the metalanguage comment made by the child in the following example:

Example 63. Child: 10-4:3 - Girl
C: "I'm reading a book of her own, after a while she says:
1. C: Do you hear that I'm reading for real.

The pre-writing consists of either doodling or graph-writing, i.e. writing letters in scrambled orders. In exceptional cases the actor knows what was meant to be written (see Example 48), but for the most part he seems to have no knowledge of what was meant to be the topic of the text.

The pre-reading covers nearly all different types of grammatical units, settings, and topics. It consists of either a retelling of a text, whose setting is very well known to the actor, or a pure make-believe "reading". In the first case the relationship between the text and what is "read" is thus not totally arbitrary.

The pre-reading and pre-writing acts are thus always performed by a single actor, but these acts can be a part of a joint activity, i.e. be performed within the media of reading and writing together. The activities, however, are more often shared in pre-reading (67%) than in pre-writing (28%). When these activities are shared, they occur mainly within a reading intervention-text (67%) and an writing intervention-text (57%), respectively (see Example 63 and 6). In some instances the text takes the

61 Numbers of reading and writing acts. Within one and the same language activity one or more reading or writing acts may occur.

62 Cf. pre-phonetic reading and writing described in chapter 2.
form of a commentary-text (see Example 48) or a story-text (see Example 34). But the comments made within these more elaborated texts do not concern the child’s unacceptable “reading” or “writing”. Thus, even when the parent within the spoken texts has an opportunity to correct the child’s unacceptable “reading” and “writing” he does not use it (see Example 6).

Reading by the setting (N=13) and copy-writing (N=16)

The next type of reading and writing behaviours to be described resemble the pre-reading and the pre-writing acts since they also constitute OLAs, in which the reading and writing acts are performed by a single actor. These behaviours, however, are permissible readings and writings or they are correct in the majority of cases.

The term reading by the setting refers to the fact that the reader is able to read the text by means of his knowledge of the setting in which the text occurs. Presented with the text out of this setting he is not able to accomplish the reading. The text as such is thus not known by the reader. Texts that lend themselves easily to this type of reading are labels and signs of different kinds, since these are strongly restricted to occurring only within certain settings.

The copy-writing is also a written language behaviour where the text as such is not known by the writer. But contrary to reading by the setting it is sufficient for the writer to be able to identify the text setting as such, i.e. as something consisting of letters, in order to carry out this type of written language behaviour. The text is in this way differentiated from scribbles, drawings, and so forth. In an instance where only this condition is fulfilled the language actor is not able to make a reading by the setting of the text or his own writing, but has to ask for reading assistance from somebody else (see Example 10).

These activities are only in exceptional cases accompanied by a MLA. They treat many different types of topics and all the different grammatical units, except for scribbles and letters. Nevertheless, the most prevailing unit dealt with is the word. This occurs mainly within shared activities (reading: 79%; writing: 62%) in the form of an reading intervention-text (90%) and an writing intervention-text (80%; see Example 9), respectively.

Whole-word reading (N=18) and whole-word writing (N=18).

Whole-word reading and writing constitute OLAs carried out by a single actor in a grammatically correct way. These behaviours are distinguished from the reading by the setting and copy-writing because the text as such is recognized and no support from the setting is needed in order to perform the acts. The terms whole-word reading and whole-word writing originate from the fact that the acts are a reading and a writing of a word as a whole, a gestalt, without breaking it down into its constituent letters or letter-sounds.

In the data the whole-word reading and whole-word writing occur in exceptional cases together with a MLA. The texts read and written embrace the grammatical unit ‘word’, except in the case of some of the writing acts, which treat either a phrase or a clause. The most prevailing topic is ‘persons’, i.e. the name of a person. The topic is, thus, in most instances well-known by the actor. An early example is the child’s ability to read and write his own name and names of members of the family. Another example is when the child writes all the words he knows how to read and write in “what-I-can-read-and-write lists”.

Example 64. Child: 1 · 6:10 · Girl

*DUMMAR* · STRÖ · HEJ · SOCKER · GODIS · MJAU · JAG · NÖTTER · KAM · GOD · VOVVOV · JUL · VETEMJÖL · KOR · TÄLT · TUPP · FLÖTA* · BIL · Ö · ANNE · TUPP · FREDRIK · ANKA · AND · TIGER · APA

stupid you · castor · hallo · sugar · candy · miao · 1 · 1 · nuts
comb · good · bow-wow · Christmas · wheat-flour ·
cows · text · rooster · float · car · island · Anne · rooster
Fredrik · duck · wild duck · tiger · ape

* = big dots written by the child between the words without leaving any other space
| = end of line
*The phrase “dumma er” was treated by the child as a whole word in this reduced form.
**Correct form is “flöte”.

Thus, the words in these inventories are usually treated as whole words or as it is called in grammar invariable words, i.e. words without any morphological change. But not all of the words listed by the child are from a grammatical point of view genuinely invariable words. Another way of discovering invariable words is by looking for them in a language inventory. An early example is the child’s ability to read and write his own name and names of members of the family. Another example is when the child writes all the words he knows how to read and write in “what-I-can-read-and-write lists”.

Example 64. Child: 1 · 6:10 · Girl

*DUMMAR* · STRÖ · HEJ · SOCKER · GODIS · MJAU · JAG · NÖTTER · KAM · GOD · VOVVOV · JUL · VETEMJÖL · KOR · TÄLT · TUPP · FLÖTA* · BIL · Ö · ANNE · TUPP · FREDRIK · ANKA · AND · TIGER · APA

stupid you · castor · hallo · sugar · candy · miao · 1 · 1 · nuts
comb · good · bow-wow · Christmas · wheat-flour ·
cows · text · rooster · float · car · island · Anne · rooster
Fredrik · duck · wild duck · tiger · ape

* = big dots written by the child between the words without leaving any other space
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**Correct form is “flöte”.

Thus, the words in these inventories are usually treated as whole words or as it is called in grammar invariable words, i.e. words without any morphological change. But not all of the words listed by the child are from a grammatical point of view genuinely invariable words. Another way of discovering invariable words is by looking for them in a text. They are usually quite easily discovered since they never change their shape. The word ‘and’ seems to be especially easy to locate this way.

Whole-word reading (N=18) and whole-word writing (N=18).

Whole-word reading and writing constitute OLAs carried out by a single actor in a grammatically correct way. These behaviours are distinguished from the reading by the setting and copy-writing because the text as such is recognized and no support from the setting is needed in order to perform the acts. The terms whole-word reading and whole-word writing originate from the fact that the acts are a reading and a writing of a word as a whole, a gestalt, without breaking it down into its constituent letters or letter-sounds.

In the data the whole-word reading and whole-word writing occur in exceptional cases together with a MLA. The texts read and written embrace the grammatical unit ‘word’, except in the case of some of the writing acts, which treat either a phrase or a clause. The most prevailing topic is ‘persons’, i.e. the name of a person. The topic is, thus, in most instances well-known by the actor. An early example is the child’s ability to read and write his own name and names of members of the family. Another example is when the child writes all the words he knows how to read and write in “what-I-can-read-and-write lists”.

Example 64. Child: 1 · 6:10 · Girl

*DUMMAR* · STRÖ · HEJ · SOCKER · GODIS · MJAU · JAG · NÖTTER · KAM · GOD · VOVVOV · JUL · VETEMJÖL · KOR · TÄLT · TUPP · FLÖTA* · BIL · Ö · ANNE · TUPP · FREDRIK · ANKA · AND · TIGER · APA

stupid you · castor · hallo · sugar · candy · miao · 1 · 1 · nuts
comb · good · bow-wow · Christmas · wheat-flour ·
cows · text · rooster · float · car · island · Anne · rooster
Fredrik · duck · wild duck · tiger · ape

* = big dots written by the child between the words without leaving any other space
| = end of line
*The phrase “dumma er” was treated by the child as a whole word in this reduced form.
**Correct form is “flöte”.

Thus, the words in these inventories are usually treated as whole words or as it is called in grammar invariable words, i.e. words without any morphological change. But not all of the words listed by the child are from a grammatical point of view genuinely invariable words. Another way of discovering invariable words is by looking for them in a text. They are usually quite easily discovered since they never change their shape. The word ‘and’ seems to be especially easy to locate this way.
Further, it is not whole-word reading but reading by the setting which can elicit guesses about what is written, especially when the setting is ambiguous or vague. The risk with mixing whole-word reading and reading by the setting is indicated by the comment: "I am not guessing!" in the following example:

Example 66. Child: 1 - 6:3 - Girl
1. C: Here it says butter! (pointing to the label on the package with butter) I am not guessing!

In the coding of the reading acts, reading by the setting has been judged to occur in instances where the text read occurs in a setting which is very restricted, and the child has not shown any evidence of being able to read the text in any other setting than this restricted type. Before the reading in Example 66 above occurred the child had also read the text ‘butter’ in other types of settings than on a package of butter, therefore this instance is judged as a whole-word reading.

Activities with whole-word reading are, as in Example 66, mainly performed together with somebody else (67%) within a reading intervention-text (75%). But in some instances it takes place within a commentary-text (17%; see Example 65) or a story-text (8%). Whole-word writing is on the other hand mostly performed in the medium of writing alone (72%; see Example 64). The instances found within the medium of writing together take the form of either an intervention-text (40%) or a commentary-text (60%). The more elaborated texts consist of a combination of an OLA and a GMLA. The word read or written within the OLA is converted into a language object and given one or more grammatical comments.

The fourth type of reading behaviour differs from all those presented above, since it constitutes a GMLA. It is characterized by being a grammatically correct sounding out of a grammatical unit, which the actor is familiar with either through the text as such or through the setting. Unlike the first three types of reading and writing behaviours presented above, within this type, language is converted into an object, which is broken down into its constituent letter units on the secondary level in accordance with the four principles: duality of structure, invariance, linearity, biuniqueness, and their auxiliary principles and tools.

The acts are performed by a single actor and within the act of reading with sounding out the actor is given an opportunity to bring together the two operations synthesis-in-analysis and analysis-in-synthesis. The reading behaviour is at the same time a sounding out of the known word and a blending together of the written units. It can be regarded as an exercise of the more complex operation analysis-in-synthesis with the help of the less complex operation synthesis-in-analysis.

Example 67. Child: 10 - 4:3 - Girl
C. looks at a package of frozen rhubarb, which has been left to thaw.
1. C: What is this?
3. C: Does it say rhubarb there (pointing to the label)?
5. C: (pointing to the word and sounding out loudly:) “/ra:-bar-bær/”

The writing behaviour found in the data only takes the form of whole-word writing with “lettering”, even though it would be possible to perform copy-writing with sounding out and whole-word writing with sounding out, respectively. Writing with “lettering” consists of the writing of a known word by saying each letter one at a time as they are written.

These behaviours carry the same characteristics as the reading by the setting, copy-writing, and the whole-word reading and writing, respectively. An exception to this pattern is that the reading acts are primarily performed in the medium of reading alone (67%).
Reading and writing from dictation constitute GMLAs which are grammatically correct treatments of the units read or written. Reading from dictation consists of a synthesis of orally or visually given letters in a grammatical unit, a word for instance whose grammatical pronunciation and spoken counterpart the child is unfamiliar with. Writing from dictation on the other hand consists of an analysis of a grammatical unit, whose spoken counterpart, but not necessarily its grammatical pronunciation, the child is familiar with. But both types of acts treat a written text and a setting not known by the reader or writer beforehand.

The acts are furthermore characterized by being performed by two or more persons. These roles are in the data material played by the child and the parent. The reading and writing are in this analysis differentiated with respect to how elaborated the dictations are, i.e. how active the parent’s role is in the dictation. The dictations have therefore been differentiated by means of a three-graded scale corresponding to the three different types of spoken texts: the intervention-text, the commentary-text, and the story-text. The most elaborated type of dictation thus occur within a story-text and the least elaborated within an intervention-text. Reading and writing from dictation within a story-text can be seen in Example 50 and 32. Below are examples from reading and writing from dictation within commentary-texts and within intervention-texts.

Example 68. Child: 1 - 6:1 - Girl
C. reads on a bag of barley flour, where it says: "KORNMJÖL".
1. C: /k-u:-r/, here it says "kor". 
2. M: /k-u-rn/, /k-u:-G/. It says "korn" if you take all the letters.
3. C: /m-j-e-l/", it says "kornmjöl".

Example 69. Child: 2 - 5:8 - Boy
1. C: How do you write "Röde Orm"? 
2. M: /<c>/, a straight line down, a small belly at the top, and then a diagonal line down. /<c>/,...... (Then M. goes on to spell the whole word in this manner.)
*a character from a book.

Example 70. Child: 5 - 5:1 - Boy
Sometimes we are blending together and reach the word. But it is not often that C. starts to do this spontaneously.

Example 71. Child: 6 - 4:3 - Girl
C. writes the name Maria when F. sounds out the letters.

The reading act is mainly accomplished by means of the pure use of the operation analysis-in-synthesis, i.e. the four principles and their auxiliary principles and tools are operated simultaneously, while the writing act is mainly accomplished by means of taking the principles one at a time. The opposite circumstances, i.e. reading by means of taking the principle one at a time (see Example 50) and writing by means of the use of the operation synthesis-in-analysis (see Example 71), also occur within the data but to a much lesser degree.

This type of GMLA is the reading and writing activity that is in the majority of cases accompanied by a MLA. Nearly all types of topics are treated, but persons’ names are the most frequent. The word is the grammatical unit mainly dealt with, even though other types of units are found, especially within intervention-texts.

Five types of GML-reading and GML-writing.

The five following types of GMLAs to be presented are defined in the same way as reading and writing from dictation with the exception that the acts are performed by a single actor. That is, the acts are performed by the child alone without the parent intervening. The manipulation of the principles is instead performed by the child all by himself. However, in these acts the child nearly always uses the operations analysis-in-synthesis and synthesis-in-analysis. That is, the manipulation of the principles one at a time, which can be found in the reading from dictation and which is the most frequently used strategy in writing from dictation, is only found in exceptional cases within these solitary acts. Furthermore, since these exceptional cases are always part of an act dominated by the operations analysis-in-synthesis or synthesis-in-analysis they will not be treated separately.

Analysis—recoding (N=5).

The analysis—recoding is a type of unsuccessful reading, since the actor is not able to go from the analysis within the process of analysis-in-synthesis to the grammatical pronunciation of the word, i.e. to com-
plete the process of analysis-in-synthesis. The reader does not recognize the grammatical pronunciation in the analysis, even if the analysis is grammatically correct or acceptable (see Example 51).

This type of reading behaviour is found in only five instances in the data. When it occurs within the medium of reading together it usually changes into a reading-from-dictation type of reading, but not always as can be seen in Example 51 above. In this example the mother does not join her daughter in the GMLA initiated by the daughter, but instead performs a reading act which constitutes an OLA.

Analysis-in-synthesis—recoding (N=29) and analysis-in-synthesis—reading.

The analysis-in-synthesis—recoding (henceforth: AIS—recoding) and the analysis-in-synthesis—reading (henceforth: AIS—reading) are the successful reading behaviour corresponding to the analysis—recoding. In AIS—recoding the actor is able to complete the process of analysis-in-synthesis and reach the grammatical pronunciation, while in AIS—reading the actor is not only able to perform the operation analysis-in-synthesis but also able to recognize the "face" of the spoken counterpart to the grammatical pronunciation. In the early stages of AIS—reading the child operationalizes both the analysis-in-synthesis and the grammatical pronunciation or the reading behaviour in an overt manner as in the following observation:

Example 72. Child: 5 - 5:11 - Boy
C. manages to blend together the letter-sounds in words written with small letters. He repeats all words after he has sounded them out.

Since the notes made by the parents in this kind of observation are too brief to judge whether the behaviour executed by the child should be coded as AIS—recoding or AIS—reading, all these types of behaviour have been coded as AIS—recodings.

Different topics are treated in these acts, and the grammatical unit dealt with mainly is the word. However, other types of units are also found, such as the phrase, the clause and in one instance the complex text. Nearly two thirds of the acts are performed within the medium of reading together and furthermore within intervention-texts. These shared activities are only in exceptional cases accompanied by a MLA.

Synthesis-in-analysis—recoding (N=16) and synthesis-in-analysis—writing.

A more advanced writing procedure than writing from dictation, from the perspective of the child, is when the child himself uses the operation synthesis-in-analysis. Corresponding to the distinction between AIS—recoding and AIS—reading, it would be possible to draw a distinction between a behaviour that will be called synthesis-in-analysis—recoding (henceforth: SIA—recoding) and another that will be called synthesis-in-analysis—writing (henceforth: SIA—writing). But as in the case with the corresponding reading types the notes made by the parent are too brief to make a distinction between these two writing types within the data material. Therefore all types of writing where the child uses the process of synthesis-in-analysis all by himself have been coded as SIA—recoding.

When the child starts to use the SIA—recoding, the resulting forms are very reduced, since the child has not yet learned to master the four principles in full. Later on the forms get more and more grammatically (phonologically) acceptable, as the child's capacity grows. All words in Example 64 above are correctly spelled except for the first word "DUMMAR", which is a reduced form of the expression "dumma er" (stupid you). It was written by this child for the first time when she was 5.8 years old. But at that time the child wrote it by trying to find the adequate letters for the sounds she heard in her own pronunciation of the utterance. The result at that time was "DMAR", i.e. a much more reduced form than the one used in the example above. The more reduced form was, as noted by the parent, used as a whole word on several later occasions but as can be seen from the example above it developed over time to become more explicit or less grammatically incorrect.

Some characteristic features occur in this type of writing. Firstly the degree of reduction may vary enormously within the same period of time. The text in Example 49 is written by child no 1 just a few hours after she had written the text "DMAR", but it is in many respects a much more reduced form than the writing "DMAR".

The degree of reduction may even vary within the same writing event. In the next example the child has written some of the expressions several times with different resulting forms, e.g. the word "bilderboken" (the picture-book) which in the first instance has been written <"BIDRB”> has in the next instance become <"BLDRBGN”>. 

Example 64. Child: 6:11 - Girl
She has written a text which the parent has recorded.
S. writes in the text: DMAR, the picture-book.
S. writes a text in which one of the words in the text DMAR is written as BLDRBGN, the picture-book.
These examples also show a second feature encountered in the SIA—
recoding. That is, that the actor does not keep track of what has been
written and what has not, i.e. he has problems with the principle of
linearity. Some of the words or parts of the words are thus repeated.
This behaviour stems probably from the circumstance that the child is
not able to read his own writing. He has no chance of checking his writ-
ing. In the next example the child has in the first place written the name
“Lillemor” as “LÄM”. After that she starts over again sounding out
the word from the beginning and writing the letter for the first letter-
sound heard in her pronunciation of the word. This means that it is not
a transposition, as otherwise is very of ten stated in the literature, that is
the cause to this kind of mistakes. In order to be able to differentiate
between these two types of causes of the mistake, the child has to be ob-
derved during writing.

Example 74. Child: 1 - 7:3 - Girl
<“PVAT”> “privat”

This is also an example of the second source of this feature. It involves
the fact that the beginning and the end of the expression pronounced
and written are more perceptually salient than the part in-between.
Therefore these parts are more readily reproduced. It is a well-known
fact in the theory of visual perception that it is the contour which
makes the figure stand out from the background (Eriksson, 1974, pp 62-63). The
beginning and the end of the expression can be considered to be the
contour of the expression.
The third source of this feature is that sounds which have a more dramatic and tangible acoustic and articulator course are more perceptually salient and more readily reproduced. Therefore the early SIA-recodings are almost devoid of vowels and the consonant clusters are only written with one consonant, i.e. consonants are more perceptually salient than vowels and some consonants are more perceptually salient than other consonants 63.

Example 77. Child: 1 - 6:1; 6:4; 6:10 - Girl
<"MJLK"; TMTR"> (6:1) “mjölk, tomater”  
milk, tomatoes
<"SAD"> (6:4) “sand”  
sand
<"SOT"> (6:10) “stort” 64
big

Another contributing factor to lack of vowels could be that the actor in some instances does not keep a letter's name and its sound apart 65. If in these cases the letter name of the consonant contains a vowel sound, which correspond to the vowel sound in the syllable to be written, the consonant is used for representing both the vowel and the consonant sound. In the next example it is shown how the syllables /ho:/ in the word “hårtorkare”, and /m/ in the name “Emma” is written with the letters 'h', which has the name /ho:/, and 'm', which has the name /m/, respectively.

Example 78. Child: 1 - 6:11 - Girl and 5 - 5:11 - Boy
<"HRTORGARÄ"> (6) "hårterkare"  
hair-dryer
<"MA"> (6:1) “Emma”

A fifth feature of the SIA-recodings is that which in phonetics is called assimilation, i.e. “the influence exercised by one sound segment upon the articulation of another, so that the sounds become more alike, or identical” (Crystal, 1985, p 25). An example of a partial assimilation found in the data material is when a voiceless letter-sound placed between two voiced letter-sounds is written with the letter representing its voiced counterpart. This is found in e.g. child no 4's writing of “bilsbel” and in child no 1's writing of “hårtorkare”. In these writings the 'k' has been replaced by a 'g': <"BLDBGNI"> (“bilderboken”)

64The pronunciation of the last consonant letters in the word "stort" based on colloquial language does not involve the sound of a consonant cluster but instead the sound of one consonant, i.e. the retroflex /t/ despite the fact that a morphological border is situated between the ‘r’ and the ‘t’.

Plain reading (N=45) and plain writing.

The last type of reading and writing behaviour to be presented is called plain reading and writing. This behaviour is defined as a grammatically correct reading and writing where the reader/writer does not have to to convert language into an object and break it down into its constituent letter units on the secondary level in accordance with the four main principles of the writing system. In many instances it carries the same characteristics as the whole-word reading and writing. It may consist of a reading or writing of one word, but nevertheless be judged as plain reading and writing, if it is executed in a period where plain reading and writing have been learned.
Within the data material no instances of plain writing are found. On the other hand both child no 3 and 5 reached the point where they were able to read in this manner. This is how the parents of child no 5 describe his behaviour in one of their last observations just before the boy was going to start school:

Example 80. Child: 5 - 6;6 - Boy
In fact there is not much for us to report. C. is reading both books and comics nearly every day. He can even read a whole Asterix at one time.

This reading behaviour is all-round concerning topics and grammatical units. But very often the topics are not explicitly stated in the notes made by the parent. They are therefore classified as unspecified. For the most part (91%) this behaviour appears in the medium of reading alone. In the reading together activities it takes the form of an intervention-text.

Unidentified reading (N=4) and unidentified writing (N=39).

The writing acts which it is not possible to describe according to all the criteria set out above, can in many cases be judged to be the result of a SIA—recoding act, since the form of the written product is similar to the forms of SIA—recoding. But in some instances this is not possible to determine. In the few cases of unidentified reading acts it is never possible to classify them.

THE GRAMMATICAL METALANGUAGE ACTS.

The perspective.

Within the perspective concerned with the spoken acts, the grammatical comments will be highlighted. They will be analysed with a conversational analysis technique. The ultimate units of such an analysis are defined according to their function in the ongoing interaction. In the analysis, it is possible to establish the function of each utterance, relative to the text in which it occurs, and thereby to make comparisons between the function of different utterances. In this analysis the utterances will be compared regarding their ability to articulate a topic, more specifically the grammatical features presented in chapter 6.

The type of analysis used here will conform to the one developed by Anward (1983, pp 100-139). According to Anward: "Every move can be regarded as a (possibly complex) linguistic act, where a linguistic behaviour that satisfies certain conditions is linked through an internal (non-contingent) relation to an intended consequence of that behaviour." (ibid. pp 104-105). By using these criteria four types of utterances are described in the following way:

NON-ANSWER EVOKER OR REACTION EVOKER:
behaviour: a person says something about a topic
consequence: this can be said about this topic
example: 1. "potato begins with /<p>/."
2. "potato begins with /<b>/."
3. "/<b, o, t, a, t, o>/."

REACTION:
behaviour: a person says something or does something
consequence: this person accepts or rejects the consequence of an earlier utterance
example: 1. "yes, potato begins with /<p>/."
2. "no, potato does not begin with /<b>/."
3. "no."

ANSWER EVOKER:
behaviour: a person says something about a topic
consequence 1: somebody else says something more specific about this topic or somebody else does something
consequence 2 of consequence 1: something more specific can be said about this topic
example:
4. "potato begins with /<b>/."
5. "what does potato begin with?"
6. "/<b, o, t, a, t, o>/."

ANSWER:
behaviour: a person says something more specific about a topic or does something
consequence: something more specific can be said about this topic and the utterance carries out the consequence of an utterance made earlier
example:
4. "no, potato begins with /<p>/."
5. "potato begins with /<p>/."
6. "/<p, o, t, a, t, o>/."

66I wish to thank Jan Anward for help with the translation of this passage.

67In this analysis the term 'non-answer evoker' will be used exclusively for an utterance which does not get any reaction, while the term 'reaction evoker' will be used for a non-answer evoker which does get a reaction. Thus, what an utterance is coded for is dependent on the subsequent response.
Four different criteria will be used in order to establish the ranking of these utterance types as regards their ability to carry information. The first criterion has to do with whether the utterance occurs alone or in constellation with another utterance. The second has to do with whether the utterance provides any new information or not. The third has to do with whether the information provided in the utterance is self-reliant or not. The fourth and last criterion concerns the form of the information given, as to whether it takes the form of an explicit comment or of a comment performance. This last criterion will rank an utterance consisting of an explicit comment higher than an utterance consisting of a comment performance within each group of utterance types. The utterance ranked highest thus takes the following values: solitary, new and self-reliant information, and explicit comment.

A non-answer evoker, i.e. an utterance which does not get any answer or reaction, will be ranked highest concerning the first three aspects, since what has been stated in the non-answer evoker is neither rejected nor modified; it will be valid for the time being. The non-answer evoker, thus, is a news bringing solitary input which contains self-reliant news. The reaction evoker also provides new information that will be valid for the time being and is self-reliant. But it is not a solitary input, since it is always connected with a reaction. Therefore the reaction evoker will be ranked after the non-answer evoker. The answer evoker and the answer, both being non-solitary inputs, provide new information, which is the result of joint work between the two. The information provided in the answer is thus reliant on what has been given in the answer evoker, and vice versa. Since these two are similar with respect to the three criteria, they will be ranked together and placed after the reaction evoker on the ranking scale. The reaction is placed last on this scale, since it is not a solitary input, and it does not introduce any new or self-reliant information about the topic except the speaker's opinion of its validity.

<table>
<thead>
<tr>
<th>RANK:</th>
<th>solitary input</th>
<th>self-reliant information</th>
<th>new information</th>
<th>explicit comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 a reaction consisting of not consisting of a comment performance</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2 a reaction consisting of an explicit comment</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>3 an answer evoker or an answer consisting of a comment performance</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>4 an answer evoker or an answer consisting of an explicit comment</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>5 a reaction evoker consisting of a comment performance</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>6 a reaction evoker consisting of an explicit comment</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>7 a non-answer evoker consisting of a comment performance</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>8 a non-answer evoker consisting of an explicit comment</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Each explicit comment and comment performance is thus allotted a score according to this scale. An index of the work carried out by the child is furthermore calculated by subtracting the mean value of the adult's score from the mean value of the child's score for each comment. For example, in Example 2 the child receives the value 4 for her question "What does potato begin with?", and the mother receives the value 3 for her answer "/\</>./". The child's work index becomes 1 in this explicit comment on the principle of linearity.

Intermediate turns in interactions which consist of more than two turns, are furthermore regarded as having a relation both to the preceding and the following turn, i.e. they are regarded as working both retroactively and progressively. In the case where these two manners of working are not distributed amongst two or more acts within the turn, the act that carries both of these aspects has received two scores.

68This way of handling the spoken acts is inspired by the work of P. Linell and L. Gustavsson (for a presentation of their Initiative/Response-analysis see e.g. Gustavsson, 1988) and the work of R. Söderbergh and A-C. Bredvad-Jensen (1986).

69This type will also include explicit statements, i.e. explicit comments without a comment performance.

70By the term 'turn' is in this analysis meant the talk produced by one speaker without interruption by another speaker. This means that feed-back items such as 'yes' and 'no' are counted as one turn.
Furthermore, the mean value of the scores performed by each person are the figures used in the calculation of the work index. For example, in Example 81 below the calculation for each turn of the explicit comment on linearization (see underlined parts of the dialogue) is indicated in the margin (turn 7 is a reaction evoker consisting of an explicit comment; turn 8 works retroactively as a reaction consisting of no comment, and progressively as an answer evoker consisting of an explicit comment; and so forth). The sum for each person is then divided by the amount of turns that each person has taken part in. The child receives the score 3.5 ($14/4 = 3.5$), and the adult receives the score 3 ($9/3 = 3$). The work index then becomes 0.5 ($3.5 - 3 = 0.5$).

Example 81. Child: 3 - 4;8 - Girl
4. M: What month is it now?
5. C: “May”.
6. M: What letters should you write then?
7. C: /m/: It starts with /s/m/.
8. M: Then?
9. C: /m-a:/ /s/2/.
10. M: Yeah, that’s right. And then?
11. C: /m-a-:/ /s/2/.
13. C: /s/2/.

The work index calculated this way can take values ranging from -8 to 8. The values -8 and -7 indicate that the adult performs the comment by himself, while the values 7 and 8 indicate that the child performs the comment by himself. The values in-between indicate that it is a joint effort, but the lower the value the more of the information is provided by the adult, and vice versa.

The data.

In Table 20 different interaction types with respect to the conversation analysis presented above can be found. The grammatical features are in more than half of the cases (52%) treated in a one-turn move. The collective two-turns and three-or-more-turns amount to nearly one third (32%) and one sixth (16%) of the cases, respectively. The two-turns consist of either a combination of a reaction evoker and a reaction, or an answer evoker and an answer. The three-or-more-turns are more irregular, and very often they consist of several different combinations of acts. Therefore they have in Table 20 only been described by means of the score of the work index.

Table 20. The number of different combinations of acts used in discussions of the principles of the grammatical features consisting of 1, 2, and more than 2 turns. In interactions consisting of more than 2 turns only the scores for the work index is indicated. The plus sign (+) indicates the first turn in a 2-turn interaction. The abbreviations ‘cp’ and ‘ex’ stand for ‘comment performance’ and ‘explicit comment’, respectively.

<table>
<thead>
<tr>
<th>CHILD-WORK</th>
<th>WORK INDEX</th>
<th>ADULT-WORK</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;2 TURNS:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-8 non-answer evoker ex</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>-7 non-answer evoker cp</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>reaction (cp)*</td>
<td>-5 reaction evoker ex +</td>
<td>16</td>
</tr>
<tr>
<td>reaction ex</td>
<td>-4 reaction evoker ex</td>
<td>1</td>
</tr>
<tr>
<td>reaction (cp)*</td>
<td>-4 reaction evoker cp +</td>
<td>6</td>
</tr>
<tr>
<td>answer cp</td>
<td>-1 answer evoker ex +</td>
<td>32</td>
</tr>
<tr>
<td>answer evoker cp +</td>
<td>-1 answer ex</td>
<td>21</td>
</tr>
<tr>
<td>answer cp</td>
<td>0 answer evoker cp +</td>
<td>37</td>
</tr>
<tr>
<td>answer evoker cp</td>
<td>0 answer cp</td>
<td>14</td>
</tr>
<tr>
<td>answer ex</td>
<td>0 answer evoker ex +</td>
<td>3</td>
</tr>
<tr>
<td>answer evoker ex +</td>
<td>0 answer ex</td>
<td>27</td>
</tr>
<tr>
<td>answer cp</td>
<td>1 answer evoker cp +</td>
<td>18</td>
</tr>
<tr>
<td>answer evoker ex</td>
<td>1 answer cp</td>
<td>36</td>
</tr>
<tr>
<td>reaction evoker cp +</td>
<td>4 reaction (cp)*</td>
<td>2</td>
</tr>
<tr>
<td>reaction evoker ex +</td>
<td>4 reaction ex</td>
<td>0</td>
</tr>
<tr>
<td>reaction evoker cp</td>
<td>5 reaction (cp)*</td>
<td>46</td>
</tr>
<tr>
<td>non-answer evoker cp</td>
<td>7</td>
<td>208</td>
</tr>
<tr>
<td>non-answer evoker ex</td>
<td>8</td>
<td>103</td>
</tr>
</tbody>
</table>

> 2 turns | N ** | % |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8≤X≤7</td>
<td>0/6</td>
<td>1</td>
</tr>
<tr>
<td>7≤X≤4</td>
<td>0/5</td>
<td>1</td>
</tr>
<tr>
<td>4≤X≤4</td>
<td>68/46</td>
<td>14</td>
</tr>
<tr>
<td>4≤X≤7</td>
<td>5/0</td>
<td>1</td>
</tr>
<tr>
<td>7≤X≤8</td>
<td>1/0</td>
<td>0</td>
</tr>
</tbody>
</table>

Total | 810 | 101% |

*(cp) = the comment performance is optional.
** The number of child-initiated interactions are put to the left of the slash and the number of adult-initiated interactions are put to the right of the slash.

71 The combination reaction evoker cp + reaction ex is not a possible combination, since the explicit comment in the second turn says something more about the topic than is stated in the comment performance in the first turn. That is, it must be coded as a combination of answer evoker cp + answer ex.
**Solitary work and self-reliant work.**

The work performed in comments which is calculated to receive the scores -8, -7, 7, and 8 will be called 'solitary work', since the comment is performed by one person alone (see Example 67, line 5). Interactions which get scores ranging from greater than -7 to -4 and from 4 to less than 7 will be called 'self-reliant work'. The reason is that these cases for the most part consist of a combination of a reaction evoker, which is self-reliant with respect to ability to produce information, and a reaction. This collective work usually takes the form of a statement which is either approved (see Example 59, line 3, 4) or denied without any further argument.72

In the data material nearly two thirds of the total amount of work consist of these two types of work. Most of the work is carried out by the child (46%), i.e. it is child-dominated, while only 18% of the total amount of work is adult-dominated in the same manner. Table 20, furthermore, shows that the adult's solitary work consists mainly of treatments of explicit comments, while the child's solitary work mainly consists of comment performances. The self-reliant work on the other hand consists, in both the child- and the adult-initiated cases, primarily of treatments of explicit comments. But the amount of explicit comments performed or initiated by the child exceeds in both the solitary and the self-reliant work the amount of explicit comments performed or initiated by the adult. Thus, the adult does not work on his own as often as the child, but when he does he is explicit in his grammatical statements.

Furthermore, self-reliant work initiated by the child differs from self-reliant work initiated by the adult. The reactions displayed by the adult in child-initiated work serve as a sort of evaluation or feedback to the child indicating whether he is behaving correctly or not (see Example 59, line 3, 4). The child's reactions to adult-initiated work are on the other hand a sign that he is following the discussion. The adult takes the role of a teacher checking the child-initiated self-reliant work, while the child acts as an attentive pupil in adult-initiated self-reliant work. The first type of situation is furthermore much more frequent than the second type in the data material.

72 Since a narrow grammatical analysis of the spoken texts in the data material cannot be made due to the lack of information in some of the observations, statements made concerning the nature of the syntactic form of the different speech acts are based on tendencies found in the more extensive observations.
Table 21. Type of work indicated by different work indices.

<table>
<thead>
<tr>
<th>WORK INDEX</th>
<th>TYPE OF WORK</th>
</tr>
</thead>
<tbody>
<tr>
<td>8&lt;X&lt;7</td>
<td>Adult solitary work: the adult performs the act</td>
</tr>
<tr>
<td></td>
<td>all by himself</td>
</tr>
<tr>
<td>7&lt;X&lt;4</td>
<td>Adult self-reliant work: the adult performs the</td>
</tr>
<tr>
<td></td>
<td>act, while the child listens and approves,</td>
</tr>
<tr>
<td></td>
<td>disapproves or repeats as a pupil</td>
</tr>
<tr>
<td>4&lt;X&lt;0</td>
<td>Interactive work: the adult is the main actor in</td>
</tr>
<tr>
<td></td>
<td>the interaction being the only one who makes a</td>
</tr>
<tr>
<td></td>
<td>contribution containing explicit comments</td>
</tr>
<tr>
<td>6&lt;X&lt;4</td>
<td>Interactive work: the adult and the child work on</td>
</tr>
<tr>
<td></td>
<td>equal terms</td>
</tr>
<tr>
<td>4&lt;X&lt;7</td>
<td>Child self-reliant work: the child performs the</td>
</tr>
<tr>
<td></td>
<td>act, while the adult listens and approves,</td>
</tr>
<tr>
<td></td>
<td>disapproves or repeats as a teacher</td>
</tr>
<tr>
<td>7&lt;X&lt;8</td>
<td>Child solitary work: the child performs the act</td>
</tr>
<tr>
<td></td>
<td>all by himself</td>
</tr>
</tbody>
</table>

Work type and the grammatical features.

The overall pattern found in Table 20 with respect to the distribution between the three different categories of division of labour: child-dominated work (46%), interactive work (36%), and adult-dominated work (18%), changes to some degree when the different grammatical features are taken into consideration (see Table 22). The more prominent exceptions to this pattern are the comments on the features synthesis-in-analysis and analysis-in-synthesis, which are in nearly three fourths of the cases performed by the child on his own or as self-reliant work. It is much more seldom that it is executed by either interactive work or adult-dominated work. The opposite case holds true for comments on the features biuniqueness and spelling rules, which is primarily performed in interactive work. Comments on the feature duality of structure is on the other hand primarily performed by the adult alone or as adult-initiated self-reliant work. However, these exceptions are another side of the other pattern found in Table 20 that explicit comments are usually performed in interactive work quite closely followed by child-dominated work, while comment performances are mainly performed in child-dominated work.

Thus, the different main principles of the writing system are usually discussed in interaction. But when employed or just performed the child does this for the most part on his own. The last statement is especially true when the principles are applied simultaneously in the operations of synthesis-in-analysis and analysis-in-synthesis.

Table 22. Percentages of three different types of work: adult solitary work and adult self-reliant work (work index: \(-4 \leq X < 4\)), interactive work (work index: \(-4 < X < 4\)), and child solitary work and child self-reliant work (work index: \(X \geq 4\)), and the mean value of the work index distributed over comment performances and explicit comments made to different grammatical features.

<table>
<thead>
<tr>
<th>GRAMMATICAL COMMENT</th>
<th>EXPLICIT COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEATURE</td>
<td>PERFORMANCES</td>
</tr>
<tr>
<td></td>
<td>(X \leq 4)</td>
</tr>
<tr>
<td>duality of structure</td>
<td>2 10 16 3.54</td>
</tr>
<tr>
<td>invariance</td>
<td>2 22 3.25 13 22 1.12</td>
</tr>
<tr>
<td>biuniqueness</td>
<td>13 11 1.77 4</td>
</tr>
<tr>
<td>synthesis-in-analysis</td>
<td>16 7 73 4.03  3 9 2 -1.35</td>
</tr>
<tr>
<td>analysis-in-synthesis</td>
<td>3 11 72 5.51  3 9 2 -1.35</td>
</tr>
<tr>
<td>spelling rules</td>
<td>25 0.0032</td>
</tr>
<tr>
<td>Total</td>
<td>5 8 26 3.78</td>
</tr>
</tbody>
</table>

Grammatical corrections.

In the data material one hundred and fifteen instances (38 comment performances and 77 explicit comments) of incorrect treatment of the grammatical features are found\(^\text{73}\). In ninety-four of these cases (82%) the incorrect treatment is corrected. The incorrect comment performances are corrected as often as the incorrect explicit comments. Nearly half of the corrections concern explicit comments on the features invariance and linearity. It is a result which is in accordance with the dominance of these features in the total amount of comments. The features biuniqueness and synthesis-in-analysis, on the other hand, are not often corrected in proportion to how often they are wrongly treated.

The corrections are always introduced by the adult, who either makes the correction himself or prompts the child to do it. In all these cases the correction goes in the direction of the grammatical norm (cf. Example 24). The high rate of corrections of grammatical features could be compared to the low rate of corrections of incorrect reading and writing behaviours in OLAs, which the child very often carries out while the

\(^{73}\)Incorrect treatments performed by the child when he is alone, i.e. in the media of speaking, writing and reading alone, are not considered here, since the adult does not take active part in these events.
an opportunity for interactive grammatical discussions, it is also actually used that way. The intervention-text type, on the other hand, is a place for solitary work or self-reliant work, where the child is more or less left on his own to discover how to handle the different grammatical features.

There are some exceptions to the rule, among the texts that on the whole consist of less than five comments. But these texts will not be considered here because of this lack of instances of comments and therefore of support for drawing any conclusions. On the other hand, the invariance, the reading and the writing texts which consist of several comments, do not follow the main stream either. The discussion of these exceptions will be postponed to the next chapter.

### Table 23
The mean value of the work index for comment performances and explicit comments, respectively, distributed over different text types and text topics. Figures put in brackets are values for less than five instances of comments occurring in the text types.

<table>
<thead>
<tr>
<th>TEXT TOPIC</th>
<th>TEXT TYPE</th>
<th>COMMENT PERFORMANCES</th>
<th>EXPLICIT COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>INTERVENTION STORY</td>
<td>COMMENT PERFORMANCE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TEXT</td>
<td>TEXT</td>
</tr>
<tr>
<td>reading</td>
<td>5.8</td>
<td>6.2</td>
<td>2.9</td>
</tr>
<tr>
<td>&quot;I'm reading...&quot;</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>&quot;it says...&quot;</td>
<td>(2.33)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>writing</td>
<td>1.9</td>
<td>1.5</td>
<td>2.7</td>
</tr>
<tr>
<td>&quot;I'm writing...&quot;</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>biuniqueness</td>
<td>(2.5)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>spelling</td>
<td>-</td>
<td>7.0</td>
<td>3.2</td>
</tr>
<tr>
<td>synthesis-in-analysis</td>
<td>(7.0)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>duality of structure</td>
<td>-</td>
<td>(7.0)</td>
<td>(7.0)</td>
</tr>
<tr>
<td>invariance</td>
<td>7.0</td>
<td>2.2</td>
<td>4.5</td>
</tr>
<tr>
<td>alternation</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>contrast</td>
<td>-</td>
<td>-</td>
<td>1.2</td>
</tr>
<tr>
<td>incomplete linearization</td>
<td>-</td>
<td>2.1</td>
<td>0.7</td>
</tr>
<tr>
<td>elision</td>
<td>(7.0)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>acraphony</td>
<td>(7.0)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>commutation</td>
<td>(7.0)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>intrusion</td>
<td>(7.0)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>4.1</td>
<td>3.0</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Adults take an active part in the activity thus being able to make a correction. These performances are only corrected in 19% of the forty-three cases found. The uncorrected cases mainly involve pre-reading and pre-writing events, while the corrected cases involve reading by the setting, and whole-word reading. In some of the cases with pre-writing the parent even tries to "read" the text produced by the child without making any comments on the lack of correctness (cf. Example 6).

**Work type and text type.**

In interactive work the child and the adult discuss the grammatical features primarily by means of explicit comments. These explicit and interactive discussions as well as child- and adult-dominated explicit comments can usually be found in the invariance text and the linearization text dealing with the principles of duality of structure, invariance and linearity. Interactive and explicit discussions as well as child- and adult-dominated explicit comments on the other principles reside in the reading, the writing and the spelling texts. In these texts can also be found most of the comment performances on all the different grammatical features, which are mostly performed by the child himself in solitary work or as self-reliant work. An exception is the comment performances involving the somewhat more complex features: biuniqueness and spelling rules, which are mostly carried out as interactive work.

The division of labour in different text types and for different text topics is shown in Table 23 below. From this table it is possible to draw the conclusion that on average there is a tendency that the more elaborated the spoken text the more interactive is the work, and the less elaborated the spoken text the more of the work is child-dominated. This is so for both explicit comments and comment performances. Thus, the form of the story-text and the commentary-text does not only give...
SUMMARY.

In this chapter it has been shown that the children's reading and writing may take many different forms. There is firstly a propedeutic reading and writing type named pre-reading and pre-writing. It is a sort of imaginary reading and writing, which from a physical point of view looks alright. Secondly, there are the restricted forms of the so-called reading by the setting, copy-writing, and whole-word reading and writing. They are most of the time grammatically correct but are restricted in the sense that they treat very simple written texts, mainly the grammatical unit 'word'. All these reading and writing types are coded as object language activities, i.e. they treat a topic which is found in the object language. Thirdly, there are different types of reading and writing within grammatical metalanguage activities. Some of them are performed together with the parent within a so-called dictation, while others are performed by the child alone. When the writing consists of a dictation the principles of the alphabetic writing system are dealt with one at a time, but in the reading from dictation and when the child is performing the reading and writing on his own the principles are dealt with simultaneously in the operations analysis-in-synthesis and synthesis-in-analysis, respectively. This means that the writing from dictation is a much simpler task to perform since the work is distributed in such a way that each principle is treated separately. These reading and writing acts within the grammatical paradigm also deal with very simple written texts. Fourthly, a type of reading within object language activities is identified and named plain reading. It is an extensive type of reading, since it covers more complex written texts.

In a conversational analysis of how much effort the child and the parent put into the discussions and performances of the grammatical metalanguage acts, it is, moreover, shown that nearly half of the grammatical comments, explicit comments and comment performances, are made by the child more or less on his own in the form of solitary work and self-reliant work, while only eighteen percent are worked out by the parent in this manner. The operations of analysis-in-synthesis and synthesis-in-analysis are the treatments which are principally dealt with by the child on his own in this way. It occurs primarily within the intervention-text type, and also in the media of reading alone and writing alone. The rest of the grammatical comments are made in a more equal way with respect to the parent's and the child's contributions, in what here has been called interactive work. The explicit comments on all the principles of the alphabetic writing system are worked out in the most optimal interactive way. The comment performances on the principles are on the other hand a little more child-dominated than the explicit comments. Furthermore, the parent makes more explicit comments in relation to the total amount of grammatical comments he makes, than the child. That is, the work of the parent may be interpreted as a support and reinforcement of the work performed by the child. The parent explicitly states what the child is performing and makes corrections when needed. He is the guide and prompter always ready to make a contribution when necessary.
9. A TIME PERSPECTIVE.

THE PERSPECTIVE.

Even if it is interesting to look at the material as a whole, the amount of activities being carried out varies over different periods, for some children to a great extent, for other much less. In this chapter the spoken texts, the reading acts, and the writing acts described in preceding chapters will be looked at and described with regard to variation over time. The size of the age periods to be studied after some trials has been fixed to periods of six months. This seems to be a reasonable time span in order to observe any variation over time. When the time span was shortened, for example, to three months no interesting patterns could be established, probably because the data base is too small for this kind of narrow analysis. The first six-month period starts with the child's fourth birthday, except for children no 2 and no 11, whose first period starts with their third birthday.

THE DATA.

General patterns.

In Tables 24, 25, 26, 27, and 28 the aspects of the perspectives described in preceding chapters are presented in a time perspective. The activities in Table 24 are presented in terms of the solitary actions: writing alone and reading alone, and the collective spoken texts. In this table the reading and writing of letters have been separated from other types of reading and writing in the media of reading and writing alone. The spoken texts have furthermore been contrasted to seven types, in order to gain clarity. The reading, the writing, the spelling, the biuniqueness and the synthesis-in-analysis texts are in accordance with those presented in chapter 7. The invariance, the alternation, the contrast and the duality of structure texts have on the other hand been brought together under the heading letter recognition activities, since all these texts involve the recognition of letters. The linearization, the elision, the acrophony, the commutation and the intrusion texts have furthermore been brought together under the heading linearization texts, since all these involve manipulation of the principle of linearity and its auxiliary tools.

Table 24.
The percentages of different types of activities in different age periods.

<table>
<thead>
<tr>
<th>ACTIVITY:</th>
<th>3:0</th>
<th>3:6</th>
<th>4:0</th>
<th>4:6</th>
<th>5:0</th>
<th>5:6</th>
<th>6:0</th>
<th>6:6</th>
<th>7:0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing alone</td>
<td>-</td>
<td>- 50</td>
<td>16</td>
<td>20</td>
<td>15</td>
<td>25</td>
<td>20</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Writing texts*</td>
<td>-</td>
<td>13</td>
<td>30</td>
<td>14</td>
<td>13</td>
<td>7</td>
<td>12</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Reading alone</td>
<td>-</td>
<td>- 1</td>
<td>- 6</td>
<td>- 1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Reading texts**</td>
<td>-</td>
<td>13</td>
<td>7</td>
<td>11</td>
<td>8</td>
<td>2</td>
<td>-</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Letter recognition**</td>
<td>-</td>
<td>- 4</td>
<td>- 4</td>
<td>5</td>
<td>- 5</td>
<td>10</td>
<td>-</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Linearization texts***</td>
<td>-</td>
<td>- 1</td>
<td>- 1</td>
<td>- 1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Spelling texts***</td>
<td>-</td>
<td>- 1</td>
<td>- 1</td>
<td>- 1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Synthesis-in-analysis texts****</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>- 2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Total %</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>N:</td>
<td>19</td>
<td>2</td>
<td>119</td>
<td>68</td>
<td>74</td>
<td>83</td>
<td>59</td>
<td>40</td>
<td>16</td>
</tr>
</tbody>
</table>

* performed in the medium of writing together
** performed in the medium of reading together, with some few exceptions for the letter recognition activities
*** performed mainly in the medium of conversation
**** performed in the medium of speaking alone

From Table 24 it can be concluded that in all the periods where more than two children are studied, i.e. from the age of four to the age of seven the two media of reading alone and reading together dominate. In the first period the reading or recognition of letters is the most pre

75The periods where one child or two are studied are excluded from this general discussion of variation over time. The reasons for this is that most of the data in these periods consists of data from one child, since child no 2, who is one of the children or the only child studied in these periods, has a very low degree of activity in these periods. Discussion of these periods will instead be brought up in the next section under the heading "Individual patterns."
dominant activity. The treatment of letters, which is preferably performed by explicit comments on the principle of invariance, is the first grammatical activity to dominate the scene. The first letters to be discussed are usually those that occur in the child's own name and the initial letter in other persons' names. According to the survey questions it was only children no 2 and 7 who had not begun with this activity before the observation period was initiated. The early encounter with this principle is a probable cause of the fact that the work index for this feature carries a higher value in comparison with the other features right from the beginning of the observation period (see Table 27: invariance ex). In the same way, it is a probable cause of the fact that the work index for the different invariance texts carries a higher value than the average for the different text types in Table 23 (chapter 8).

Throughout the periods the explicit and interactive discussion of the principle of invariance is continued, but in the last period the child clearly dominates in these discussions. As has been noted earlier the ability to make comments on the principle of duality of structure accompanies the ability to make comments on the principle of invariance. But explicit comments on this principle are mainly introduced or modified by the adult (see Table 27: duality of structure ex).

A nearly identical pattern as to the letter recognition activities with respect to change of frequency and work type is found for the linearization texts (see Table 24: linearization texts and Table 27: linearity ex). But the linearization texts do not occur at such an early stage as the letter recognition activities. Furthermore no notations have been made of them in the survey study at an age before the observation period began. The linearization text could be said to be a more advanced way of identifying a letter than the letter recognition activity, since the actor of the text does not only identify a letter as such but also the position of the letter in a word. Most often it is the first letter or the last letter in the word that is discussed by the use of explicit comments on the principle of linearity. The linearization text could also be said to be a precursor of the spelling text, since most of the spelling texts are found in the later stages (see Table 24). The spelling text is also more advanced than the linearization text because it is the operation of complete linearizations.

In the first period the two early types of grammatical treatments are for the most part accompanied by reading and writing in OLAs, i.e. pre-reading and pre-writing, whole-word reading and writing, reading by the setting, copy-writing, and reading and writing by the adult (see Table 25). These types of reading and writing acts, mainly performed as an intervention-text, decrease over time leaving place for, in the first place, writing acts performed as GMLAs and somewhat later on giving way to reading acts performed as GMLAs.

These types of reading and writing acts are mainly performed in the collective media, and in the opening stages by joint effort in a story-text. The divergence found in Table 23 (chapter 8) between the work index in reading texts and the work index in writing texts is due to the fact that the writing texts more commonly occur at an earlier point of time than the reading texts. In the earlier periods the work consists of more interaction than in later periods, since the child needs more support in the beginning. In the reading texts, which more commonly occur at a later point of time, the child is better at handling the different principles in the operation analysis-in-synthesis, since they have already been discussed and performed one at a time from different angles in the earlier letter recognition, linearization, spelling and writing texts.

Furthermore, the earlier dominance of writing from dictation over reading from dictation is a result of the divergence found between the adult's way of answering the child's questions "What does it say?" and "How do you write 'x'?" in the first periods. Both these two types of question can be answered in two different ways. The first type of answer is to just perform the reading and writing, respectively. The second type is to prompt the child to get him involved in the reading act and the writing act, respectively. In the data material the "How do you write 'x'?"-question is always answered by the adult with prompting questions to get the child involved in the writing act either in interaction with the adult or to get the child to fulfill the act on his own. The "What does it say?"-question, on the other hand, is in the first periods primarily answered by the adult by doing the reading on his own. The high amount of adult reading stems thus from this circumstance. The adult writing in the first periods found in the data material stems instead from the child's direct request to the adult to do the writing, e.g. "Mummy, you write!". The prompting type of answer to the "What does it say?"-question is more frequent in the later periods. Thus, the parents seem to judge writing to be more workable for the child than
reading in the early stages. In writing from dictation the principles are also usually handled one at a time, while in reading from dictation they are dealt with simultaneously in the operation analysis-in-synthesis.

Table 25.
The percentages of different types of writing and reading acts in different age periods.

<table>
<thead>
<tr>
<th>AGEPERIOD:</th>
<th>3:0</th>
<th>3:6</th>
<th>4:0</th>
<th>4:6</th>
<th>5:0</th>
<th>5:6</th>
<th>6:0</th>
<th>6:6</th>
<th>7:0</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBERS OF CHILDREN STUDIED:</td>
<td>2</td>
<td>1</td>
<td>10</td>
<td>9</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>WRITING ACT:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pre-writing</td>
<td>40</td>
<td>10</td>
<td>23</td>
<td>8</td>
<td>4</td>
<td>10</td>
<td>14</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>whole-word writing</td>
<td>-</td>
<td>10</td>
<td>17</td>
<td>12</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
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<td>16</td>
<td>42</td>
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<td>28</td>
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<td>24</td>
<td>20</td>
<td>14</td>
<td>11</td>
</tr>
</tbody>
</table>

Table 26.
The percentages of the reading alone activities, the writing alone activities, and the intervention, the commentary and the story-texts in different age periods.

<table>
<thead>
<tr>
<th>AGEPERIOD:</th>
<th>3:0</th>
<th>3:6</th>
<th>4:0</th>
<th>4:6</th>
<th>5:0</th>
<th>5:6</th>
<th>6:0</th>
<th>6:6</th>
<th>7:0</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBERS OF CHILDREN STUDIED:</td>
<td>2</td>
<td>1</td>
<td>10</td>
<td>9</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
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<td>READING ACT:</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
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<td>pre-reading</td>
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<td>36</td>
<td>33</td>
<td>-</td>
<td>7</td>
<td>4</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>reading by the setting</td>
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<td>8</td>
<td>13</td>
<td>14</td>
<td>13</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>whole-word reading</td>
<td>22</td>
<td>14</td>
<td>7</td>
<td>18</td>
<td>11</td>
<td>5</td>
<td>18</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>reading with sounding out</td>
<td>-</td>
<td>3</td>
<td>7</td>
<td>4</td>
<td>11</td>
<td>7</td>
<td>4</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>analysis - recoding</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>11</td>
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<td>4</td>
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</tr>
<tr>
<td>reading from dictation</td>
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<td>-</td>
<td>-</td>
<td>4</td>
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<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>A5-recoding</td>
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<td>-</td>
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<td>11</td>
<td>11</td>
<td>2</td>
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<td>plain reading</td>
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<td>-</td>
<td>2</td>
<td>9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>unidentified</td>
<td>11</td>
<td>28</td>
<td>20</td>
<td>21</td>
<td>13</td>
<td>2</td>
<td>9</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>adult</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>21</td>
<td>63</td>
<td>36</td>
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</tr>
<tr>
<td>Total %</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>N:</td>
<td>9</td>
<td>0</td>
<td>36</td>
<td>15</td>
<td>28</td>
<td>47</td>
<td>41</td>
<td>22</td>
<td>6</td>
</tr>
</tbody>
</table>

Looking at the distribution of spoken text types (the intervention-text, the commentary-text, and the story-text) and the reading and writing alone over different age periods (see Table 26) it is found that in the opening stages it is as much interactive work within the story-texts and the commentary-texts as there is self-reliant and solitary work within the intervention-texts and the reading and writing alone activities. In the later periods the interactive work fades away to leave place for the solitary work. In the survey observations it is furthermore possible to find that the observation period is preceded with primarily self-reliant or solitary work in activities such as pre-reading and pre-writing. This implies that it is possible to find a wave-like developmental curve or a U-curve where the self-reliant and solitary work constitute the terminal points of this curve and the interactive work constitute the part in between these points. Nevertheless, there is an active interplay between interactive work and self-reliant and solitary work during the whole last two periods are dominated by the plain reading in the medium of reading alone and SIA-recoding, which is either performed in the medium of writing alone or in consultation with the adult in the medium of writing together. In the case of reading it is thus possible to identify a move from reading in OLAs through reading in GMLAs and then back to reading in OLAs. In the case of writing the same pattern is found except for the last stage, which is reached at a later point of time.
This means that there is another more small wavy developmental curve that is superposed on the first main curve. Thus, the two main types of work interact during the whole development but they dominate the scene at different points of time. This developmental trend may be regarded as a dialectal relation between practice and theory. The children on one hand practice reading and writing by themselves in self-reliant and solitary work, and on the other hand they discuss the theory of writing in the interactive work.

Grammatical features, mainly introduced by the writing from dictation, are in the early stages dealt with in interactive work, which is more or less child- or adult-dominated (see Table 27). In the case of comment performances concerning the features of invariance, linearity biuniqueness, synthesis-in-analysis and analysis-in-synthesis the child over time becomes more and more independent. Explicit comments on the features biuniqueness, synthesis-in-analysis, and spelling rules, and comment performances concerning the feature spelling rules are, on the other hand, with few exceptions dominated in all the periods by interactive work. These last mentioned features are more complex than the other features, because they presume the other features; therefore the children need more help with these even at a later stage.

In Table 27 it is possible to identify a small wavy developmental curve that is superposed on the main developmental curve. This wave-like movement over time found in the figures for the mean value of the work index for the different grammatical features are a result of alternation between the operation of topics already known by the child and topics which are new or not very well-known by the child, e.g. a new letter, the linearization of a word not linearized before, and so forth. But on the whole it is an upward movement, which could be said to represent the bottom line and the right stem of the U-curve. The high value in the early stages in the case of explicit comments on the feature biuniqueness and comment performances relating to the feature synthesis-in-analysis, though, is in many instances the result of not correcting the child's ungrammatical way of treating these grammatical features, i.e. the adult does not seem to correct the child when he is considered to be too young to be able to perform the act in the grammatically correct way.
atical unit 'complex text'. The children use the more advanced texts already at an early point of time in their pre-reading acts, and then they return to this kind of text after they have learned how to deal with written texts in a grammatically correct way. The prime grammatical unit used in these learning acts is the 'word'. For this unit it is possible to identify an upside-down U-curve, which has its peak when the children are most interacting with their parents.

Table 28.  
The percentage of different grammatical units read and written in different age periods.

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>1</td>
<td>10</td>
<td>9</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>2</td>
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<tr>
<td>NUMBERS OF CHILDREN STUDIED:</td>
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<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>GRAMMATICAL UNIT:</td>
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<td></td>
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<tr>
<td>scribbles</td>
<td>-</td>
<td>8</td>
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<td>-</td>
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<tr>
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<td>66</td>
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<td>14</td>
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</tr>
<tr>
<td>simple texts</td>
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<td>-</td>
<td>1</td>
<td>-</td>
<td>9</td>
<td>4</td>
<td>7</td>
<td>22</td>
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<td></td>
</tr>
<tr>
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<td>5</td>
<td>3</td>
<td>2</td>
<td>19</td>
<td>19</td>
<td>14</td>
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<tr>
<td>Total %</td>
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<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
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<td>58</td>
<td>66</td>
<td>57</td>
<td>31</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Even though the general patterns presented hold quite well for all the children some individual differences are found, which will be looked at next.

Individual patterns.

Differences among the children do not in the first place concern how they and their parents perform the acts. The way of performing the acts accords very much with each other. The differences found are instead much more due to what kind of activities different children put most effort into at different periods. With respect to this activity aspect the children can be categorized in three main groups. They are the writers, the readers, and the talkers.\(^{76}\)

\(^{76}\)Cf. chapter 4.

The writers.

As was stated above writing occurs at an early point for most of the children, but some show more predilection for this activity than others. Children no 1, 3, 4, and 7 are judged to belong to this category. Child no 1 is the prime lonely writer.\(^{77}\) In the beginning pre-writing dominates the scene, but when SIA-recoding has in fact occurred it totally takes over.\(^{78}\) In contrast, children no 3, 4, and 7 show a more all-round picture with respect to types of writing employed, and furthermore they participate in more shared writing activities than child no 1, before they move on to the SIA-recoding type.

The first type of text written in a grammatically correct or permissible way cover the grammatical unit word, as is the case for all children in the study. But children no 1 and 3 very soon change into writing both simple and complex texts. Child no 1 does this most of the time by himself, while child no 3 does this with the help of her parents' dictations. The more extended texts written already at an early point of time by these two children cover a variety of topics. However, the more commonly occurring topics are 'personal feelings' and 'social relations'. The word-texts concern primarily the topic 'persons', the name of the child himself or the name of near related persons. During almost the whole period child no 7 is observed, he is occupied with trying to write his own name. The help of his parents' dictation and his own "lettering". Gradually he succeeds in writing his name all on his own (see Example 12). Child no 4, on the other hand, writes the names of all her relatives and friends (see Example 9) in an extensive manner. In the beginning she uses whole-word writing and copy-writing but later on she gets help from her parents in writing from dictation.

Furthermore, these children differ to some degree with respect to reading behaviours. Child no 7 does not participate in any reading act except for reading letters within some letter recognition texts. But in the survey observation the parents have noted that he uses pre-reading and reading by the setting just after the observation period ended, and

\(^{77}\)This is due partly to the fact that the child, in the early stages, was not observed when she was interacting with her parents, partly to the fact that when this type of observation was begun she already knew the basics of most principles of the writing system, and did not ask for much help in order to write.

\(^{78}\)The unidentified writing is here judged to sort under synthesis-in-analysis - recoding.
that he starts to use the analysis-recoding half a year after that. At the end of his fifth year he also starts to use AIS-recoding.

In addition to letter recognition texts, children no 3 and 4 participate in reading through pre-reading, whole-word reading, and reading by the setting in the first six-month-period of observation. Reading performed by the child does not appear again before writing from dictation and SIA-recoding have been in use for some time. At this point, child no 3 moves very rapidly on to plain reading, while child no 4 searches out the operation of analysis-in-synthesis in reading by the setting with sounding out, and in analysis-recoding. According to the survey observations, child no 4 started to use the AIS-recoding just one month after the observation period was ended. A development similar to child no 4 is found in child no 1's data. But, although the observation period continues until the day child no 1 starts school no move to plain reading is found. Her devotion lies instead in the act of writing. In parenthesis it may be noted that it was not until child no 1 left her third year in school that she read in a fluent way. This was commented on by her in the following way: "Mummy, now I don't read any longer, now the words just come."

The readers.
The readers are the children who put most of their effort into different types of reading activities. In this group are to be found children no 3, 6, 8, 9, 10, and 11. In the first period of observation these children read either letters or texts, or both. Text reading consists of pre-reading, whole-word reading, and reading by the setting. As was the case with all other children these types of early reading involve for the most part a variety of topics, but most of all the name of persons.

In the observations of children no 8, 9, 10, and 11, who during the observation period do not reach any further than this type of reading, very extensive notes on the parents' accepting attitude towards the children's non-grammatical pre-reading is found. But, on the other hand, the parents take good care that the letters they discuss with their children within letter recognition texts are named in the right way. No further types of behaviour are found in the survey observation for child no 9, than those noted within the observation period. In contrast, children no 10 and 11 show some instances of analysis-recoding already some months after the observation period is ended, at the age of 4:6 and 3:6, respectively. Moreover, at the same age for child no 10 and at the age of 4:0 for child no 11, they both employ the SIA-recoding and AIS-recoding. Within the writing from dictation (and in the case of child no 10, within the linearization texts) these children also come more in contact with the more complex principles of linearity and binuniqueness at an earlier point of time than children no 8 and 9.

Child no 5, on whom the most extensive notes are found in the whole data material, comes, like most of the writers and children no 10, and no 11, already from the beginning of the observation period in contact with all the main principles of the writing system. In the case of child no 5 this occurs within the letter recognition, the linearization, the spelling and the writing texts. These activities dominate the first year, but after that year the reading activities increase and gradually take over the whole scene. In the next year child no 5 moves from reading from dictation to AIS-recoding, and in the end reaches plain reading. In contrast to the other children, child no 5's reading and writing do not in the first place concern names of person, but mainly all the other types of topics presented in chapter 6.

In contrast to all the other children, reading from dictation is already predominant during the first observation period in the data from child no 6. This is due to the fact that the father of this child most of the time prompts his daughter to try to read, instead of doing the reading himself, as is found in the other pairs of children and parents. Many times these reading activities end up in omnium gatherum as the father once expresses it, but on some occasions the girl succeeds in her reading. But within these activities and some writing from dictation acts the child comes in contact with all the main principles of the writing system. After a rest from this type of reading adventures, filled with some letter recognition activities, the girl returns to reading. At this point she shows much more success in her reading. She manages e.g. the AIS-recoding all on her own. The dominant topic in her readings is the name of persons.

The talkers.
The group of talkers consists more exactly of just one talker, which is child no 2. This child differs from all the other children because he could be called a very talkative boy with really no big interest in using the writing system. Sixty per cent of the activities he takes part in are conversations or speaking alone, while his fellows in the investigation
show another pattern. They are talkative too, but most of the talking is done while reading or writing is being done. Furthermore, more than half of the total amount of work for this child is concentrated into one period. This period, when the child is between the age of five and a half and six years old, coincides with his older sister's first term in school, which could be a factor of importance in the explanation of the great concentration of work in that period of time.

Although this child does not participate in any reading and writing activities where the different main principles of the writing system are discussed, he gets acquainted with them in a variety of texts in the media of conversation and speaking alone. Off record it may be noted that this boy could already read fluently after his first year in school. This should be compared to his older sister's (child no 1) much more laborious way of reaching the stage of fluent reading. But on the other hand, the writing of child no 1 has always eclipsed the writing of child no 2 at the same age level.

**SUMMARY.**

In this study it is found that reading and writing means different things in different age periods to the child. However, the child's perspective on reading and writing changes over time in the direction of the reading and writing behaviour displayed by developed readers and writers. Furthermore it is found that the different children's developmental profiles are very much in accordance with each other. This development could be described as a U-curve trend, where the left stem, the bottom line, and the right stem with respect to different aspects consist primarily of the following:

<table>
<thead>
<tr>
<th>practice</th>
<th>theory</th>
<th>practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>OLAs</td>
<td>GMLAs</td>
<td>OLAs</td>
</tr>
<tr>
<td>complex texts</td>
<td>simple texts</td>
<td>complex texts</td>
</tr>
<tr>
<td>solitary and self-reliant work</td>
<td>interactive work</td>
<td>solitary and self-reliant work</td>
</tr>
</tbody>
</table>

*GMLAs:

| one grammatical principle at a time | synthesis-in-analysis | analysis-in-synthesis |

The differences found between the children concern in the first place the duration of the different phases in the development. The extremes, with respect to this aspect, are the fast child no 3 and the more slowly developing child no 1. In the second place the children differ regarding what medium they prefer to language in. Some prefer to read, others to write, and still others to just talk about reading and writing and grammatical features.

The general patterns concerning developmental characteristics, thus, are very much in accordance with other studies of early literacy. The most conspicuous similarity is the description of the "code-breaking"-phase as a "pivot" factor in learning more developed reading and writing. This result gives rise to two very challenging questions, because they challenge my claims put forward in chapter 3. They concern whether the grammatical way is the only gateway to more developed reading and writing, and, in that case, whether the metalinguistic research has really pointed to a "pivot" factor in predicting the child's emerging reading and writing ability. However, since the pictures presented in this study have been taken from different perspectives they give rise to the possibility to discuss the "code-breaking" phase in a more nuanced way than is usually done. This and some closely related aspects will be discussed in the next section.
SECTION THREE
CONSEQUENCES.

In this section the results from Section Two will be discussed in the light of what was concluded in Section One. In the first place it will be argued that reading and writing based on both the static linguistic sign and the dynamic linguistic sign fill important functions, but that they are quite different in character. Furthermore it will be argued that reading and writing difficulties may be a consequence of the use of traditional reading and writing programs, and that some children, like the children described in Section Two, are favoured by these programs. Patterns similar to spoken language learning and written language learning will be examined. Lastly, pedagogical implications will be discussed. Thus, the topics of the following chapters will be:

- Two disparate types of reading and writing. (chapter 10)
- Reading and writing difficulties as a consequence of traditional reading and writing programs. (chapter 11)
- Children favoured by traditional reading and writing programs. (chapter 12)
- The similarity of spoken language learning and written language learning. (chapter 13)
- Summary and pedagogical implications. (chapter 14)

10. TWO DISPARATE TYPES OF READING AND WRITING.

THE LANGUAGE ACTIVITIES.
The activities that occur in the data material have been described as language activities. They have been defined as languageing about different topics. In this languageing the actor's "world of meaning" is created, negotiated about, struggled for, maintained, or changed. All the activities are language activities in this sense, but they differ with regard to the topic dealt with. In the object language activities the topic is the "object world", which concerns different aspects of the actor's "life". The metalanguage activity and grammatical metalanguage activity have on the other side "language as an object" as their topic.

The reading and writing acts found in the object language activities and the grammatical metalanguage activities, respectively, can be said to be characterized by creating two logically disparate aspects of meaning, since they manipulate two logically disparate topics from a languageing point of view. Reading and writing acts within grammatical metalinguage activities create "grammatical meaning", i.e. meaning that is stipulated by grammatical considerations.

<table>
<thead>
<tr>
<th>LANGUAGE SIGN: DYNAMIC WORLD OF MEANING:</th>
<th>LANGUAGE ACTIVITY:</th>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>dynamic language sign</td>
<td>world of meaning</td>
<td>grammatical meaning</td>
</tr>
<tr>
<td></td>
<td>the actor is</td>
<td>grammatical metalanguage activity</td>
</tr>
<tr>
<td></td>
<td>living in</td>
<td>activity</td>
</tr>
</tbody>
</table>

Reading and writing acts within object language activities are part of "the world of meaning the actor is living in". These are two logically disparate meaning concepts, by the same token as object language activities and grammatical metalinguage activities are two logically disparate activities. The concept 'grammatical meaning' rests on the static
language sign, while the concept ‘world of meaning the actor is living in’ rests on the dynamic language sign.

**Effective Reading and Writing.**

The reading and writing acts within the object language activities are the use of the writing system where the text operates effectively within the world of meaning the actor is living in. Therefore this type of reading and writing acts will be called effective reading and writing. The effective reading and writing acts are languageing where this world of meaning is continuously created and maintained. The actor is in his reading and writing situated within a language space which is inseparable from the text. There is no difference between effective reading and effective writing with regard to this language perspective. They are both languageing within written language, where the writing system is used in many different situations for many different purposes.

Behaviours classified as effective reading and writing are reading and writing of letters such as, pre-reading and pre-writing, reading by the setting, copy-writing, whole-word reading and writing, and plain reading and writing. The pre-reading and pre-writing differs from the other types of effective reading and writing by standing in an arbitrary relation to what, from a grammatical point of view, is written or said to be written. It is a non-grammatical effective reading and writing. But from a languageing point of view as well as from a physical point of view, pre-reading and pre-writing are like the other types of effective reading and writing. They can be regarded as a way of practising the use of the reader’s and writer’s tools and at the same time stating what is written and what is going to be written, respectively, i.e. the actor is in the language. The reading and writing of letters such as, the whole-word reading and writing, copy-writing, reading by the setting, and plain reading and writing are further all different kinds of what can be called grammatically correct effective reading and writing, the difference being the size of text that they cover. Plain reading and writing is the most extensive and productive one. Thus all acts are effective in the world of meaning the actor is living in but the earlier ones are more restricted than the last with respect to what grammatical unit they operate with. Reading and writing of letters cover the unit letter. Whole-word reading and writing, reading by the setting, and copy-writing cover with few exceptions the unit word. Hence, the different types of effective reading and writing behaviours can be classified in three different groups: non-grammatical effective reading and writing, restricted effective reading and writing, and developed effective reading and writing.

What in this thesis has been called developed effective reading and writing are usually in other works termed functional reading and writing. But the reasons for the departure from this practice are the following two. First, the term functional reading and writing would not be allowed to cover other behaviours than developed effective reading and writing. But in order to point out the equivalence in nature between different reading and writing behaviours constituting object language activities, they have in this thesis been given the same class name, i.e. effective reading and writing. Second, the reading and writing acts performed within the grammatical metalanguage activities are also functional. They fulfil an important function, as will be shown below, but they do not operate effectively in the world of meaning the actor is living in.

**Grammatical Reading and Writing.**

In glaring contrast to the effective reading and writing acts stand those that occur within the grammatical metalanguage activities, i.e. reading by the setting and copy-writing with sounding out or with “lettering”, whole-word reading and writing with sounding out or with “lettering”, reading and writing from dictation, analysis—recoding, AIS—recoding, and SIA—recoding. They are called grammatical reading and writing, since they are the operation of a language object within the grammatical perspective, i.e. the operation or manipulation of a language object in accordance with the principles of the alphabetic writing system.

They are the creation of grammatical language objects and are restricted within the grammatical paradigm, since in accordance with the principles of the alphabetic writing system they go to and fro between the two abstract levels within the principle of duality of structure. The primary level consists of meaningful units, i.e. grammatically meaningful units, since the operation is a grammatical operation. The secondary level consists of units that lack meaning but which combine to form units of such grammatical meaning. The grammatical reading
act differs from the grammatical writing act with respect to the direction of the operation within the principle of duality of structure. The grammatical reading act is the merging of elements on the secondary level to form elements on the primary level. The grammatical writing act on the other hand is a dismantling of elements on the primary level, i.e. the grammatical pronunciation of a language object, to elements on the secondary level.

The different reading and writing behaviours described in chapter 8 can thus be classified as either effective reading and writing or grammatical reading and writing, except in the case of the AIS—reading and the SIA—writing. These constitute on the other hand acts that consist of both grammatical reading and effective reading, and grammatical writing and effective writing, respectively.

Research workers that propose a mentalistic explanation of reading acts (see chapter 2) would perhaps hold that what in this thesis has been called effective reading and grammatical reading is the same as what by them have been called a top-down reading process and a bottom-up reading process, respectively. In accordance with this, the strategies used by the reader would in this type of scientific frame be characterized as direct access and phonological recoded access to the internal lexicon, respectively. However, what is overlooked in this kind of argument is that these models by definition operate within a grammatical meaning paradigm. Even a pragmatic component attached to the other components in the description would not change the circumstance that such a model operates within the grammatical meaning concept. A pragmatic component is like the other components of grammar. It is founded on the static language sign.

Thus, the reader will never reach further than grammatical meaning in his reading, neither in the bottom-up nor in the top-down reading model. This implies that, if the mentalistic explanation was accepted, the bottom-up reading process could only be compared with the reading behaviour AIS—recoding. But it could not be compared with the reading behaviour AIS—reading, since this involves both grammatical meaning and the world of meaning the actor is living in. The top-down reading process could not be equalized to any of the effective reading types, since none of these are executed within the grammatical perspective, but within the world of meaning the actor is living in.

79For discussion of problems with traditional pragmatics see Segerdahl, 1988.

THE FUNCTIONS OF THE TWO TYPES OF READING AND WRITING.

The function of effective reading and writing is to create, recreate, or maintain individual and cultural meaning in the world of meaning the actor is living in. But as has been seen in chapter 8, when this type of reading and writing goes wrong or the actor is unable to execute it, effective reading and writing are often replaced with grammatical reading and writing, respectively. The only way that reading and writing acts are discussed in other terms than those allowed by metalanguage comments is by means of grammatical metalanguage explicit comments. That is, when discussed in a reading and writing setting, language is objectified and analysed in accordance with the principles of the writing system.

The grammatical perspective is the traditional and most used way to analyse and reflect upon language. As was stated in chapter 3 the historical origin of grammatical studies is the investigation into the logic of the use of letters. It is a way to understand language from the perspective of writing. In this way effective reading and writing are reflected upon. Thus, grammar is primarily a metalanguage for language in the written medium. As such it may be used as an assistance when we encounter problems in our effective reading and writing that when reflected upon seem to be like something reflected upon at an earlier point.

Text types allowing such discussions are, according to the definitions given in chapter 8, the commentary-text and the story-text. Spoken texts corresponding to discussions of grammatical reading and writing acts as such are mainly the reading, writing, and spelling texts. Furthermore, spoken texts with other topics, presented in the genre perspective, are discussions of specific principles of the alphabetic writing system. These are the spoken texts where the principles of the alphabetic writing system are not only discussed, but where the knowledge of these principles are transmitted from one generation to the next. In the early stages there is an asymmetric division amongst the participant with respect to ability to read, write, and manipulate the alphabetic writing system but as was displayed in chapter 9, the child's ability to perform these acts increases over time.

The situations could be regarded as learning centers for the manipulation of the alphabetic writing system, i.e. they are grammatical reading and writing lessons. They are, in accordance with the terminology...
of Bernstein (1974, pp 181-187), critical socializing contexts for learning the manipulation of the alphabetic writing system. The adult, the already educated reader and writer, shares his knowledge of how to perform grammatical reading and writing with the child. Grammatical reading and writing are in this data material transmitted from one generation to the next through "informal" conversations between parents and their pre-school children. The grammatical perspective, thus, is used not only as an aid to effective reading and writing or a way of discussing reading and writing, but also as a mediator and a support in teaching and learning to read and write. The instruments created by grammatical reflection are used in order to reach a more developed effective reading and writing.

Other types of reading and writing acts, found in the data material, that have such an auxiliary function, are whole-word reading and writing, reading by the setting, copy-writing, and adult reading and writing. The assistance, thus, may also consist of other persons that either carry through the reading or writing acts, or suggest or initiate an assistance.

All these types of assistances are, as stated previously, not bound up with learning to read and write, but are practicable when developed effective reading and writing go wrong or are experienced as void of sense. They are all different types of support when problems occur, irrespective of where on the developmental ladder the reader and writer are situated. Development may therefore be regarded as a successive decrease of the need to use different types of assistance. In this perspective the starting-point of development, thus, is like one big problematic behaviour (cf. pre-reading and pre-writing), e.g. a shift from reading to blending together, or from writing to sounding out, i.e. a shift from the use of the dynamic linguistic sign to the use of the static linguistic sign. Nevertheless, the shift is not of the kind implied in interactive reading models. In them, the shift is from one type of unit to another type of unit within the static linguistic sign.

In the view of this thesis, grammatical treatment, the use of the static linguistic sign, does not belong within effective reading and writing. It is another type of activity called for when needed as a help. The activities belong to different conceptual frames of reference. Furthermore, in order for grammatical reading and writing to be an aid to effective reading and writing, the reader and writer must be able to recognize a grammatical meaning as something in the world of meaning that he is living in, i.e. he must be able to use the means of expression in actual language use. The ability to recognize a grammatical meaning as something in the world of meaning the actor is living in, thus, is a necessary condition if grammatical reading and writing are to be useful in effective reading and writing. If this condition is not fulfilled the act will only become a grammatical pronunciation of a means of expression and not an aid to effective reading and writing.

A developed reader and writer is characterized by being flexible in his way of dealing with the writing system in that he is able to change reading and writing type if necessary, i.e. if he has a problem in the de-
CONCLUDING REMARKS.
Grammatical reading and writing, thus, is of good assistance when written language goes wrong, but it is not the only one. Moreover, it is not grammatical reading and writing that advances us in the written world of meaning, but the effective reading and writing. An analogous case to this would be when dancing goes wrong. Then you break off and take one step at a time in accordance with the analysis of the dance your teacher has taught you. This technical treatment would not be called dancing, not even by an amateur. Just like dancing, reading and writing do not consist of the steps that are part of the analysis made, but are the movement; the dancing, the reading, the writing. A pure technical treatment of these and other types of human expressions is in daily life usually considered as something else, a fatigued behaviour, and not as the actual behaviour.

11. READING AND WRITING DIFFICULTIES AS A CONSEQUENCE OF TRADITIONAL READING AND WRITING PROGRAMS.

THE TRADITIONAL READING AND WRITING PROGRAMS.
Two of the main characteristics of what will here be called a traditional reading and writing program, have already been presented and discussed in chapter 3. The first one is the dominance of an individual-psychological perspective, in which it is assumed that a phenomenon is reducible to its component parts and that these components parts may be studied separately.

The second characteristic presented earlier is the dominance of reading over writing. Thus, even though they are called reading and writing programs, they deal for the most part with how reading should be taught.

The third main characteristic to be identified here will be sought among the pedagogical questions that are central in many of the reading and writing programs for the early stages. The questions are the following:

1. How many sounds are there in 'sun'? or What sounds are there in 'sun'?
2. How does the letter /<s>/ sound?, or What does the letter /<s>/ look like?
3. What sound/letter comes first/second/... in 'sun'?
4. What does /<s, u, n>/ become?
5. How do you sound out 'sun'?
6. How do you blend together /s, o, n/?
7. How do you spell /l/ in 'shop'?

The topics of the questions are recognized as the same as those of the grammatical metalanguage activities presented in chapter 6. The questions concern the principles of duality of structure (1), invariance (2), linearity (3) and biuniqueness (4), the processes synthesis-in-ana-
Grammar: Reading and writing:

Phonology

- sounding out, blending together, the pronunciation of words, spelling

Table 30
The components of grammar and their closest equivalents in reading and writing education.

<table>
<thead>
<tr>
<th>Grammar</th>
<th>Reading and writing:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonology</td>
<td>sounding out, blending together, the pronunciation of words, spelling</td>
</tr>
<tr>
<td>Morphology</td>
<td>word-division, word-formation, inflection, spelling</td>
</tr>
<tr>
<td>Syntax</td>
<td>sentence-division, sentence-formation, text-questions concerning the parts of a sentence (closed text-questions)</td>
</tr>
<tr>
<td>Semantics</td>
<td>choice of words, text-questions concerning the knowledge in a dictionary (closed text-questions)</td>
</tr>
<tr>
<td>Pragmatics</td>
<td>choice of words, text-questions concerning stereotypes of behaviour (closed text-questions)</td>
</tr>
</tbody>
</table>

In opposition to what was stated in previous chapter, that reading and writing are open activities and that there is no absolute terminal point which it is possible to reach, these programs stipulate a terminal point, a normative pattern, for what will be regarded as correct reading and writing. Furthermore, with this normative pattern, it is possible to grade behaviours. This is the situation to a large degree in traditional teaching of reading and writing, and in traditional tests of reading and writing ability. The object of this tradition has been to teach a reading and writing ability based on the static linguistic sign.

THE PHONIC METHOD VS THE WHOLE-WORD METHOD.

In the debate concerning what method to use in order to reach the best result in the teaching of reading and writing, different types of phonic methods have been put in opposition to different types of whole-word methods. From a grammatical point of view the whole-word method operates with a unit (the word) on the primary level of the principle of duality of structure. The phonic method operates on the other hand with a unit (the letter-sound) on the secondary level. The phonic method, thus, is by necessity connected with the grammatical

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80 Cf. the original meaning of the term 'grammar' presented in chapter 3.
frame of reference as is not the case for the whole-word method. The unit word is by definition a grammatical unit with a grammatical meaning, but it may be used within the world of meaning the actor is living in. That is, there are texts in the world of meaning the actor is living in, that consist of only one word, e.g. signs of different kinds. Therefore there may be ambiguities with respect to what conceptual frame of reference the word is used, whether it is used in a grammatical frame of reference, or whether it is used within the world of meaning the actor is living in. Thus, the whole-word method may be used within a grammatical frame of reference but not by necessity as is the case with the phonic method. Therefore the dichotomy between the phonic method and the whole-word method is in parts illusory.

If the whole-word method is used as a grammatical method, as the phonic method, or not depends on how it is implemented. It depends on whether the words used are part of the world the child is living in, or not. Analogous to the difference between AIS-recoding and AIS-reading, and so forth, a distinction between whole-word recoding on the one hand, and whole-word reading and whole-word writing on the other hand may therefore be introduced.

**TECHNIQUE VS PROGRAM.**

In numerous descriptions the whole-word method has been associated with communicative or language programs, while the phonic method has been linked with programs which consist of exercises of isolated skills. However, the combination of a program and a method is in parts illusory. This may be taken care of by a more strict use of the terms ‘program’ and ‘method’. The first type of program will here be understood as programs primarily based on the dynamic language sign, while the second type will be understood as programs primarily based on the static language sign. That is, by the concept ‘program’ is henceforth meant the kind of language view inherent in education. By the term ‘method’ in the phrases “whole-word method” and “phonic method” is meant a grammatical metalanguage activity based on the use of one type of grammatical unit. In this sense a whole-word method uses the unit word, while a phonic method uses the unit letter-

81 Cf. the difference between AIS-recoding and SIA-recoding on the one hand and AIS-reading and SIA-writing on the other.

sound. The term ‘method’ in this sense will henceforth be exchanged for the term ‘technique’ in order to avoid the above described association between program and “method”.

In a language program, the techniques are just a part of the program, more precisely a grammatical support when languageing goes wrong. In a program that consists of exercises of isolated skills, on the other hand, the techniques are identical with the total program. Both the program and the techniques are in this case based on the static language sign. Thus, different techniques may be used in both types of programs. In other words, the difference between programs is not the type of technique used in them, but the status of the techniques in relation to the whole program.

In accordance with the distinction between different types of pedagogical uses of the ‘word’, a tripartite distinction between a whole-word technique, which is grammatically based, and two types of whole-word programs, which are based on either the dynamic language sign, or the static language sign, must be introduced. In a whole-word program based on the dynamic language sign, reading and writing are introduced by making the child read and write whole-words that are parts of the world the child is living in. The whole-word technique as well as the phonic technique may be parts of this type of whole-word program. A whole-word program based on the static language sign, on the other hand, consists of merely the whole-word technique. An example of this could be isolated vocabulary training.

Thus, with the term traditional reading and writing programs will henceforth be meant a program conceived within an individual-psychological perspective, that is primarily based on the static language sign, that primarily makes use of the phonic technique, and that is dominated by the treatment of reading.

**AN EXAMPLE OF AN EVALUATION OF DIFFERENT PROGRAMS.**

In a recent Swedish study (Lindgren, 1990) carried out within a nation-wide evaluation program of Swedish school children's reading and writing ability, the main conclusion reached is that there is no

82 Cf. Doman’s (1986, pp 109-140) description of such a whole-word program.

83 The evaluation program concerned with reading and writing was initiated by the Swedish Board of Education.
difference in the effect between the use of a traditional reading and writing program and the use of a language experience program. The children’s reading and writing ability is shown to reach the same level within both these programs.

But the problem with this and other similar studies is that it is not possible, or unfair, to compare these both so-called “methods” by using the same test instruments. The traditional reading and writing program is comparable to a phonological technique, while the language experience approach works primarily with languageing, and secondly with not just one, but with several techniques. They imply two totally different views of what reading and writing are and how reading and writing should be taught.

Furthermore, within Lindgren’s study no distinction is made between what the teacher says he is doing and what he actually does do. That is, in the study the teachers are asked to report what kind of “method”, i.e. program, they use. But the research worker does not check how the teachers actually work. There are several causes of the fact that there may be a difference between what somebody says he does and what he actually does. For example, the teacher may have misinterpreted, misunderstood, or in some way or other just partly understood the program. As he has kept on working with the program, he may also have changed it according to his own preferences.

However, Lindgren makes a detailed investigation of the teachers’ way of judging the importance of the sub-operations described in the curriculum for reading and writing. Interestingly enough it is found that the teachers, no matter what “method” they use, have the same attitude towards these sub-operations. This implies that the teachers work very much in the same manner, even if they state that they work according to two different “methods”. Despite this very clear-cut fact, Lindgren trusts the teachers’ statements about what “method” they use and draws the conclusion that it does not matter which “method” that is in use. The children will learn to read and write whatever “method”. Lindgren claims that it all depends on the teacher (sic).

The inadequate attitude towards the data together with the low number of subjects investigated (N = 10), and that the teachers have not been investigated with respect to how they actually work in the classroom make Lindgren’s conclusion stand on a very shaky basis. Furthermore, Lindgren’s concluding remarks that it is time to stop the quarrel over “methods” and instead discuss the question concerning how to help each child in the best way, shows that it is questionable if Lindgren herself understands what the “method”-discussion concerns.

**Hindrances to Learning to Read and Write.**

The four characteristics of the traditional reading and writing program discussed above, the individual-psychological perspective, the over-emphasis on reading, the use of the static language sign as such, and the use of “grammatical texts”, will in the following be claimed to be conceivable hindrances to learning to read and write, because of the narrow perspective of reading and writing they adopt.

**Individual-psychological perspective.**

Two totally different types of negative outcome of the use of individual-psychological pedagogy will here be identified. The first is caused by the lack of a social situation in which reading and writing are taught. As was argued above it is as a member of a society in which written language is one way of creating and maintaining meaning that the child will come to a point where he wants to be part of this type of meaning-creation and meaning-maintaining. That is, the motor in all type of written languageing is the desire to be a meaning-creating and meaning-maintaining member of a written society. Within a program based on individual-psychological pedagogy the child will not necessarily come to experience this source of inspiration because within such a program it is the individual’s internal schemas that are modified and increased in number. The child is therefore supposed to be able to learn reading and writing in the absence of written languageing, i.e. to learn reading and writing as isolated skills. A child who is not able to understand the reasons for this kind of pure exercises, who is not able to see the forest for the trees, can therefore be supposed to run a high risk of becoming a disabled reader.

The second effect of the individual-psychological perspective concerns the fact that disabled readers and writers do not by necessity receive an adequate remedial program. Within such a perspective the inability lies in the child. It is the child who is considered to not be able to learn to read and write. He is not able to “build the right internal schemas”. The reasons suggested are e.g. that the child is immature,
does not understand the technique, is devoid of ability. The solutions are, e.g. to wait with the start of the program until the child becomes mature, to change the technique, to use compensatory programs in order to fill in the supposed lacks. My claim is that these solutions may be misdirected since they rest on too narrow a perspective of where the cause of the problems may lie. In this way a pedagogy based on the individual-psychological perspective may prevent a more adequate solution to a problematic situation being chosen, and disabled children will not be given a fair chance to learn to read and write.

**Over-emphasis on reading.**

The next factor to be considered is the fact that the traditional reading and writing programs teach only reading in the early stages. Writing is postponed until later. The reading act, thus, is not put into a written language situation, it is supposed to be learnt in the absence of writing. The possibility of learning reading through writing, which is otherwise a successful technique designed especially for disabled readers, is disregarded. Furthermore, the fact that the writing act can be said to be a source of more personal engagement than the reading act is overlooked. Therefore a child who is not able to learn reading merely through reading will not be given an alternative, as for example the strategy of “learning reading through writing” would be able to provide. The effect of this “pure use” of reading is parallel to the effect of the “pure use” of individual-psychological pedagogy, i.e. the child may encounter difficulties in learning to read and write.

**The static linguistic sign.**

Within the field of research concerned with children’s metalinguistic ability, research workers have shown that a pre-school child who is not able to answer the following questions runs a high risk of encountering reading and writing difficulties.

- Which / How many sounds are there in the word ‘sun’?
- Which sound comes after / before /i:/ in ‘police’?
- What does /s-0-n/ become?

The questions concern the principle of duality of structure, the principle of linearity, and the principle of biuniqueness, respectively. They coincide, thus, with some of the questions identified as central questions in a traditional reading and writing program.

The relationship between the tests and the child’s ability to learn to read and write has been discussed in metalinguistic research. The discussion has dealt with the question of whether metalinguistic awareness, i.e. the ability to answer the kind of questions used in the tests, is a prerequisite for, or a result of learning to read and write. My claim is that as long as the child is asked to learn to read and write within a program based on the static language sign, i.e. to learn grammatical reading and writing, there is no such relationship. The metalinguistic tests and this type of reading program deal with the same type of task. They are the same thing. They are only performed in different media. However, as has been shown in the presentation of the data material it is possible to learn all the principles of the alphabetic writing system in either the spoken medium (cf. child no 2), or the written medium, or in both. The kind of medium is not the troublesome part, the grammatical perspective is.

Within the paradigm of a traditional reading and writing program the metalinguistic factor, thus, has a much greater predictive power than just being a pivot factor or a good predictor of reading and writing success. The research within the field of metalinguistics has in other words shown that in order to have success in a traditional reading and writing program, the child must know the program from the very start. If he is not acquainted with the questions and answers concerned with the static language sign before he starts he will have no success in the program. This paradoxical situation is caused by the program-users’ unawareness of what their program presupposes, and in consequence of this, their inability to adjust to the child’s level.

In opposition to my claim presented above, the claim made by most of the research workers within the field of metalinguistics has been that they have indicated a good and reliable predictor of failure/success in the acquisition of reading and writing. The proposed explanation of the results has been that children who are not able to objectify language and examine it in accordance with the phonological component of their internal grammar, i.e. children who are unaware of their internal

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84See e.g. Bryant and Bradley, 1985; Clay, 1975, 1980, and 1983; Fernauld, 1943.

85Cf. e.g. Downing & Valtin, 1984.
grammar, will encounter problems. The suggested solution for these children is that before school starts they shall take part in games and exercises in which language is objectified, so they will get an opportunity to learn how “to shift attention from content to form”. In this way they are supposed to become aware of their internal grammar.

This explanation is based on a false understanding of language and of grammar, i.e. the understanding that language as such has an inherent form, and that this form is mentally represented. Instead I claim that a traditional reading and writing program presupposes not only that the child is able to objectify language, i.e. the first basic principle of a grammatical treatment, but also that he understands and is able to operate the second basic principles of a grammatical treatment, i.e. the principle of duality of structure. This means that in order to see the “sounds” (letter-sounds or phonemes) of language, it is not enough to be able to objectify language as supposed by the metalinguistic research workers, because there are no such units either in language as such or in the language object as such. Their existence is only relevant in the grammatical perspective, within the grammatical frame of reference, in which all three basic principles of a grammatical treatment is at work. This means that the problem is not with the child, or his being unable to become aware of an internal grammar. The problem is with the users of the traditional reading and writing program and their unawareness of what it means to take part in a grammatical frame of reference.

The negative outcome of such a situation is a child who remains a non-reader, or becomes a guesser. Since some of the fundamental principles of the grammatical perspective is concealed from the child and since it is the only gateway into reading within a traditional reading and writing program, the child will not be able to learn either grammatical reading or effective reading. In the group with guessers may be found children who make guesses that are so wild that the words “read” are nonsensical; e.g. instead of reading “tjugosju” (twenty-seven) and “multiplicera” (multiply) the child reads “tjyvost” (thief-cheese) and “mullpipa” (a non-word) (Lundberg, 1983, p 31). Lundberg comments on this observation with the statement that these children have experienced so many failures for such a long time that they have become blind to what will make sense and what will not make sense.

The “grammatical text”.

The research workers within the field metacognitive investigations have shown that children who are not aware of the reading task as such before school starts, i.e. the “How?” and “Why?” of reading, are liable to end up in the group with children who have reading and writing difficulties. The same kind of frustrating and paradoxical situation, that the traditional reading and writing program is not able to take care of children who are not already acquainted with some of the fundamentals for learning written language before they start school, is found once again. A solution to this problem, suggested by e.g. Dahlgren & Olsson (1985, pp 230-231, 250-251), is that the teacher should start the reading program by among other things discussing and showing different functions of effective reading.

This strategy is probably very helpful and effective in a language program based on the dynamic language sign, but it is more doubtful if it will have the expected force in a traditional reading and writing program, since the activities in this type of program consist of grammatical reading and writing. They are practised without any contact with actual reading and writing situations. In order to be an effective strategy within a traditional reading and writing program it demands of the child that he is able to relate the grammatical reading that is taught to the effective reading that the teacher is talking about and giving examples of. That is, the child must, on his own, take a step between the two distinct conceptual frames of reference: the grammatical reading on the one hand, and the effective reading on the other hand, without any concrete support from the teacher.

Nevertheless, a feasible way would be if the language objects used in the traditional reading and writing program were such that the child without any problems could recognize them as something that could be a part of the world of meaning that he lives in. However, my claim is that this is seldom the actual case. On the contrary, the ready-made texts in the text-books are based on the authors’ apprehension of what could be suitable for children. The choice is usually made from some sort of neutral norm, in order to suit as many children as possible. These “grammatical texts” may be in accordance with the language of the child, but not necessarily so. For example, the “Witting-method” (Witting, 1985) goes so far as to use texts consisting of so-called
"content neutral" syllables and "words", i.e. in many cases nonsense words. Furthermore, the neutral texts are treated in a grammatical way, by grammatical text questions. This means that it is enough if their grammatical meaning is understood.

The use of "grammatical texts" may be the cause of at least three possible types of reading difficulties. The first type coincides with the type of reading behaviours discussed above, i.e. non-reading and guessing. In the case where the texts have no connection at all with the world of meaning the child lives in, i.e. if the texts used make no sense to the child, he is not able to learn either grammatical reading or effective reading.

The second negative outcome is a reading behaviour that consists of pure grammatical reading. This means that the child is able to make a grammatical reading of a text without being able to use the reading as a language act, i.e. he is not able to take the step to effective reading. He is not able to relate the grammatical meaning that he finds in the texts to the world of meaning he is living in. This is a type of a reading disability, which is so sophisticated that it is neglected frequently by both the child himself and his observers. Children performing this kind of reading behaviour may go through the whole school system without being discovered. The neglect of this type of problem is more prominent in circumstances where the child just has to prove his grammatical understanding of the text and never has to prove that he can use his reading for different types of purposes, i.e. to use it in the world of meaning he is living in. The neglect is caused by the fact that the AIS-recoding is treacherous in that it is very easily confused with the AIS-reading. That is the child is making an AIS-recoding, which may be interpreted by an observer as an AIS-reading. The reading behaviour is thus overestimated.

The phenomenon may be compared to what Goodman (1982b, p 83) in his perspective calls "recoding", which implies that you go from the written code to the spoken code without extracting meaning. This form of reading is set by Goodman in opposition to "decoding", which he holds to be the true form of reading. It implies that you extract meaning out of the written code. The phenomenon may also be compared to the much more general phenomenon of "surface-directed learning" or "atomistic learning", which is contrasted with "holistic learning" (Marton et al, 1977). In its more extreme forms it is a learning by heart of details found e.g. in a text. Furthermore, Marton et al claim that the curriculum and the form of evaluation mainly used in educational systems in our culture favour such a surface-directed method of both teaching and learning, and that this is a consequence of the political and cultural frames in which the educational system works (ibid. p 118).

The third negative outcome of the use of "grammatical texts" is a reading behaviour that consists of effective reading, i.e. the child is able to perform grammatical reading and also able to take the step from the grammatical reading to effective reading, but the language in the "grammatical texts" is so remote from the core of the world of meaning he lives in, that it does not affect him in any discernible way. In this way the child is not given any reasons for utilizing and developing his effective reading. The main core of children in this group comes from social and culture groups that do not share the cultural features that the traditional school adheres to. They are capable of both grammatical reading and effective reading, but they refuse to use them, mainly out of some kind of opposition to school and/or the establishment.

CONCLUDING REMARKS.

The traditional reading and writing programs are thus claimed to be the cause of three different main types of difficulties. The first type consists of children who do not understand the use of the static linguistic sign, the use of the "grammatical texts", the social vacuum in which the education take place, and/or the written language vacuum, and who because of this will drop out at an early point of time and encounter serious problems. The second type comprises those children that are able to grammatical reading and writing, but no more. The third and last group consists of the children who learn effective reading and writing, but are not given tasks that have any connection with the world of meaning they are living in. It is usually only children in the first of these groups that are identified as having difficulties, since the traditional tests used only measure grammatical reading and writing. The other two groups will in all probability pass through school without getting any help.

In chapter 10 it was stated that a developed reader and writer was
characterized as being flexible and able to change strategy if needed. The traditional programs, however, work in the opposite direction to this fact, by dealing with only one strategy, the phonological technique. They therefore reinforce a tendency to become a non-flexible reader and writer, which is a salient characteristic of disabled readers and writers. Thus, as long as the goal is to teach reading and writing by means of traditional reading and writing programs, we will find children with reading and writing difficulties. These are children who perhaps will never understand, discover, or experience the marvels of being within written languageing.

12. CHILDREN FAVOURED BY TRADITIONAL READING AND WRITING PROGRAMS.

THE PREREQUISITES OF A TRADITIONAL READING AND WRITING PROGRAM.

As may be concluded from chapter 11, already before he starts a traditional reading and writing program the child must know what is presupposed by the program, in order to be sure of being able to learn to read and write. However, all types of educational programs have prerequisites that the learner must know in order to be able to participate in the program. The problem with traditional reading and writing programs is that required pre-knowledge concerns aspects that the program is supposed to teach. The prerequisites concern:

- the ability to understand the function of effective reading and writing as acts of sharing meaning;
- the ability to understand that texts are usually written by someone else, who wants to share some experiences, knowledge, and so forth, with other persons;
- the ability to understand that the writer some day can be me;
- the ability to understand that the texts in the text-books used in traditional reading and writing programs are written by someone who in the first place does not want to share something, but wants to teach grammatical reading and writing;
- the ability to understand the function of grammatical reading and writing as an efficient aid to effective reading and writing, i.e. the ability to understand the connection between the exercise of isolated grammatical skills and the social situation in which reading and writing occur;
- the ability to handle the two basic principles of a grammatical treatment, i.e. the creation of a static linguistic sign and the principle of duality of structure, in order to understand the grammatical questions that are put forward.

Thus, if a child is to have success in learning to read and write within a traditional reading and writing program he must be very competent
and tolerant, in order to understand the use of a pedagogy based on the individual-psychological perspective, the use of mere reading, the use of the static language sign as such, and the use of "grammatical texts".

CHILDREN ACQUAINTED WITH THESE PREREQUISITES.

Children like those described in Section Two are acquainted with the prerequisites described above when they start school, since they have grown up in a milieu where such abilities are fostered in daily life activities. Furthermore the child’s part in developing these abilities has been extended in a successive manner and the repertoire of written language situations in which the child participates also increased in the same manner.

Meaningful situations.

The first characteristic of the growth of these children as literate persons is that they deal with reading, writing, and grammatical treatments within meaningful situations. In the first place the situations are meaningful in the sense that they mainly concern the world of meaning the actor is living in. Grammar is hardly ever treated separately, but within a reading, writing, spelling, or game setting. If it is treated separately, as in the letter recognition events and in most of the linearization texts, it is almost always on the child’s initiative. In the linearization texts the language object used is in addition well-known to the child, usually the name of a near and dear person. Settings not examined in detail in this study include the reading of children’s books to the child. But within the survey questionnaire the parents have noted that they read to the child at least once a day. These situations may also be recognized as meaningful situations where developed effective reading are shown and talked about86.

The situations are also meaningful for the children in the sense that they are always provided opportunity and encouraged to activate themselves or take an active part in the interactions. It is within the commentary-text and the story-text that the interactions occur. In contrast to these stands the intervention-text, which consists of no dis

86Cf. e.g. Snow & Ninio, 1986, pp 121-137.

cussion except for a plausible metalanguage comment. In the intervention-text and the media of reading alone and writing alone the child acts all by himself without any kind of support. The difference between these four types of situations with respect to the part played by the child and the parent, respectively, is in most cases obvious. Within the story-texts, which are very often initiated by the child’s questions e.g. "What does it say?", or "How do you write ..?", the adult is often the initiator of the grammatical perspective. He is furthermore the leading guide and prompter, who gives most of the information needed in order to fulfill the acts. In the commentary-text, however, the child is the initiator and leading actor. The adult is "degraded" to answering questions or to taking the role as supervisor, who gives corrections or supporting suggestions when needed. In the intervention-text the child and the adult are on the other hand companions sharing experiences that stem from their reading or writing. But if anything goes wrong the adult has the possibility to make a correction or some other type of supporting move. That is, if necessary the intervention-text expands into a commentary-text or a story-text. The intervention-text and instances of reading and writing alone are the places for actual use of already acquired knowledge.

In the collective acting the persons can be regarded as holding different roles. Possible roles can be distinguished according to whether, firstly, the person is mentally present or not, secondly whether he is a participant in the languageing act or not, thirdly whether he can take the role as an actor, and fourthly whether he is acting or not. In this way it is possible to identify five types of roles: the actor, 2nd person, 3rd person, observer, and the possessor of no role (see Table 31).

Furthermore, the actor may have one or more of the following roles: the initiator, the accomplisher, and the evaluator.

Table 31
Types of roles according to different characteristics.

<table>
<thead>
<tr>
<th>Presence:</th>
<th>Actor</th>
<th>2nd person</th>
<th>3rd person</th>
<th>Observer</th>
<th>No role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant:</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Can act:</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Is acting:</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

The children in this study have not only been provided the opportunity to take an active part, but they have also done so most of the time,
being the initiator and/or accomplisher of many of the acts. Such a “training” guarantees that the children are also able to use these abilities in other situations, such as the school situation. These children may be contrasted with a child who has problems with understanding the school situation, the traditional reading and writing program, and because of this will take the role as feeble second person, third person, observer, or as in the worst case as having no role at all in school.

From simple effective reading and writing to more complex.

The second characteristic of these children’s growth as literate persons is that they go from simple reading and writing tasks to more complex ones and at the same time have the possibility of sharing developed effective reading and writing performed by their parents and other developed readers and writers. The goal of the child’s attempts at reading and writing is visible for him all the time. The first type of effective reading and writing to appear is a simple use of the writing system, in the sense of being non-grammatical or restricted, while the later effective reading and writing is a more complex use of the writing system, in the sense of being more extensive. The first type is a rudimentary form of the latter type, and only a few features of developed effective reading and writing can be identified. But still they are the most essential features of written languageing. In the non-grammatical and restricted reading and writing the child is in the world of meaning he is living in. These forms of early reading and writing can be regarded as a sort of role-play, and can be compared to role-plays found within other domains of the child’s world of plays. Jacob (1984, pp 79-80) has also shown how different playing activities give opportunities to practise and elaborate literacy skills. It is the overall structure, such as the external features and the purpose or intention of the “real” activity that is dealt with in the role-play.

Furthermore, effective reading and writing precede, accompany, and follow grammatical reading and writing. The use of the writing system precedes, accompanies, and follows the analysis of the writing system. The more rudimentary use precedes the analysis, which in turn precedes the more developed use. The grammatical analysis is a technique which supports the growth of written languageing, but still it is the languageing which generates the growth.

Object language activities in which effective reading and writing take place and grammatical metalanguage activities in which grammatical reading and writing take place are two logically disparate activities. Therefore situations where these activities are mingled, i.e. situations where two different topics are at work (“life” and the grammatical expression), can be said to put a double burden on the child’s capacity, but here the parent is acting as mediator. The child is learning the acts of grammatical reading and writing within the realm of effective reading and writing in a stepwise fashion in interaction with his parents and in some cases with his older siblings. Moreover the “life”-topics chosen in the non-grammatical effective reading and writing, in the restricted effective reading and writing, and in the early grammatical reading and writing are concrete and semantically very close or immediate to the child. Later on they become more abstract and remote from the child’s immediate surroundings. The genres used are also more simple in the early stages than later in the development. With the exception of the texts used in non-grammatical effective reading and writing, the written texts are extended from the grammatical unit ‘word’ to the unit ‘complex text’.

The child’s manner of performing the reading and writing acts in different age periods may be seen as indications of how his understanding of the concepts reading and writing changes over time. Of interest here is that some similarities between this way of looking at the child’s reading and writing development and Vygotsky’s (1974 and 1976) description of a child’s conceptual development can be established on a more general level.

Firstly it is possible to trace the three logically distinct developmental stages described by Vygotsky (1976, pp 140-156) in the child’s way of performing his reading and writing. The pre-reading and pre-writing are here seen as indications of “syncretic thinking”, i.e. the first stage in Vygotsky’s description. In this terminology pre-reading and pre-writing are understood as the result of an unsettled syncretic mixture of the child’s own subjective understanding of what reading and writing are. The next stage is the “complex thinking”, which corresponds to reading by the setting, whole-word reading and whole-word writing. In this kind of thinking the child starts to bring together phenomena that are related in an objective manner and as such are supposed to have a common nature. It is a unification of phenomena based on concrete and
actual similarities between different items. In this stage expressions are read and written in the same way when they have a similar structure or when they occur in similar situations, i.e. whole-word reading and writing and reading by the setting, respectively. The last stage is the development of "genuine concepts", which in the development of reading and writing should be compared to developed effective reading and writing.

Secondly, Vygotsky (1976, pp 170-171) emphasizes analysis, which presupposes, and is presupposed by, synthesis, as a most important technique for reaching the stage of thinking in genuine concepts. Genuine concepts are founded on an understanding of the world as capable of being systematized in certain ways. The systems are created by the analysis. The parallel case to this trait in the development of developed effective reading and writing is grammatical reading and writing. Grammatical analysis is a way to systematize reading and writing in the literate culture.

Thirdly, Vygotsky (1976, pp 56-59; 154-155) points to the social interaction in which thinking develops. It is in the confrontation with others that the child's way of thinking and behaving changes over time. This is also an important characteristic of the children's way of learning to read and write in this study.

Fourthly, the developmental stages are considered by Vygotsky (1976, p 176) to coexist to a certain degree at different points of time, which is also a feature found in the study presented in this thesis. Thus, the child's way of developing his reading and writing can be understood as a successive development of more and more sophisticated acts, which have their origin in earlier more rudimentary forms.

**From simple grammatical tasks to more complex.**

The third characteristic of the children's growth as literate persons is that the grammatical treatments fulfill a support in learning to read and write and that the development of the ability to handle the principles of the alphabetic writing system grammatically is ordered in the same way as the principles are ordered logically, i.e. the correct use of the principle of invariance precedes the correct use of the principle of linearity, and so forth. However, an instance of a more complex principle may appear at an earlier point of time in the development than an instance of a less complex principle. But in this case it is initiated and carried out by the adult or it is carried out in an ungrammatical way by the child. Thus, the appearance of the principles is not ordered in the same way as these are ordered logically, but the ability to handle them in a correct way is.

The physical shape of a text is likely to be one of the most important factors with respect to facilitating the learning of the two basic principles of a grammatical treatment, i.e. the creation of a static linguistic sign and the principle of duality of structure. The children in this study were surrounded by written texts and persons who read and wrote the texts. The children themselves also had several opportunities to use and create texts in their own fashion. Furthermore, they got answers to their questions and comments on their statements concerning the physical organization form, i.e. the grammatical structure, of the texts. In this way the principles of the alphabetic writing system were treated one at a time first in principle-specific texts, such as the invariance texts and the linearization texts, then in reading, writing, and spelling texts, primarily in the form of story-texts. The principles were also treated all at once in the operations of synthesis-in-analysis and analysis-in-synthesis, primarily within the setting of reading and writing, in the form of commentary-texts and intervention-texts and in reading and writing alone. For most of the children this occurred at a later point of time than the treatment of each individual principle. The grammatical features were treated by explicit comments in the well-known medium of speaking together, either in combination with reading or writing, or as such in pure conversations before they were treated by comment performances within the lesser-known media of reading and writing alone. For example, letters were in the first place named in object language activities, like other objects of the world the child is living in. Later on they were discussed as grammatical objects in the medium of reading and writing together. Lastly the child was able to use the letters in grammatical reading and writing in the media of reading and writing alone.

In the data material presented here the letter has been the nearly all-pervading basic unit in the grammatical analysis and synthesis. But other grammatical units such as the morph, the word, the phrase, and the sentence can be used as this basic unit and some of these units have been used as much in different types of reading programs. But children who learn developed effective reading and writing by the exclusive use
of e.g. a whole-word program, i.e. by a grammatical unit on the primary level, also seem to discover the secondary level and start to analyse the words into smaller units\textsuperscript{87}. This means that it is possible to take different routes to the goal, but the grammatical unit letter seems to have a central function in these routes.

An issue under debate within the research fields of metalinguistic and of early literacy is the order in which reading and writing occur in the development of literacy. Some research workers claim that reading precedes writing, others claim that writing precedes reading. A solution to this controversy is to distinguish between effective reading and writing on the one hand, and grammatical reading and writing on the other hand. If this is done, it is possible from the data of the present study to state that in the case of effective reading and writing it is a matter of personal taste if reading is preferred to writing or vice versa. Some of the children in the study favour reading, others writing.

But when it comes to grammatical reading and writing, which is also the type of reading and writing mainly referred to in the debate, writing in the form of writing from dictation, SIA—recoding, and SIA—writing precede reading in the corresponding forms. This is so both on logical grounds and for practical reasons. As has been stated above the synthesis-in-analysis operation is less complex than the analysis-in-synthesis operation. In a grammatical writing exercise of an unknown text, the actor is operating with more known units than in a grammatical reading of such a text. In grammatical writing, the utterance itself and perhaps even the pronunciation of the utterance is known beforehand. Furthermore all or some of the letter-sounds or letters in the written shape of the utterance are known. In grammatical reading, all or perhaps just some of the letter-sounds or letters are known, but not the utterance itself, nor the pronunciation of the utterance. Furthermore it is easier to interfere and to guide the grammatical writing of an utterance. Grammatical writing leaves more space for interaction than grammatical reading. In grammatical writing it is possible to guide the actor to take one principle at a time or to manipulate the synthesis-in-analysis operation in a stepwise fashion. This is also the manner in which most of the writing from dictation is done in the data material. Grammatical reading is on the other hand very difficult to operate in this way. In the data material only a few instances of this kind of guiding are found. In most cases they result in an unsuccessful reading or an incorrect reading (a guess) on the part of the child. However, in these cases the adult most often does the actual reading by himself. The analysis-in-synthesis operation, which is the operation of all the four main principles of the writing system at once, is an essential element in the reading of an unfamiliar text in an unfamiliar setting. This type of reading situation presupposes that the child has some knowledge of the quite complex operation analysis-in-synthesis. A more advanced stage is when the child is able not only to operate the analysis-in-synthesis operation, but also to find out the actual utterance, i.e. he is able to make an AIS—reading. This type of reading act also comes into more extensive use in the later periods.

Furthermore, writing story-texts exceed reading story-texts with respect to the amount of grammatical features treated. In addition to the treatment of the principles of invariance, linearity, and biuniqueness found most often in both these types of text, the principle of graphic shape and spelling rules is very often found in the writing story-texts, i.e. they are the most information-dense texts. Grammatical writing is the forerunner of grammatical reading. Paul, a little boy at the age of 5:1, expresses this fact in the following way "Once you know how to spell something, you know how to read it." (Bissex, 1980, p 122).

In interaction with the parents the children have several opportunities of getting acquainted with the circumstance that language can be objectified, that it is an object that can be regarded as consisting of different types of parts, that the parts are arranged in a certain order and are replaceable, that the parts have a sound shape and a written shape, that one shape can be the same as or different from another shape, and so forth. Furthermore it must be noted that these kinds of discussion are not restricted only to reading and writing, but may very well be carried on within so-called grammatical conversations.

\textbf{CONCLUDING REMARKS.}

The children that participated in this study were acquainted with or were on their way of becoming acquainted with the prerequisites of the traditional reading and writing program. When they start school they will be acquainted with different types of reading and writing activi-

\footnote{\textsuperscript{87}Cf. e.g. R. Söderbergh's (1971, pp 32-106) description of her daughter's way of reading in the early stages.}
13. THE SIMILARITY OF SPOKEN LANGUAGE LEARNING AND WRITTEN LANGUAGE LEARNING.

THE STATE OF THE ART TODAY.

Some research workers, especially those found within the field of early literacy⁸⁹ point to similarities between the learning of spoken language and the learning of written language. However, the majority of research workers investigating reading and writing, both early and later developmental phases⁹⁰, as well as research workers within linguistics interested in these matters, describe spoken language learning and written language learning as two quite disparate processes. They base their argument on the view that spoken language and written language have totally opposite characteristics. The characteristics, usually referred to, can be seen in Table 32⁹¹. In what follows these characteristics of written language and written language learning will be examined.

<table>
<thead>
<tr>
<th>Written language:</th>
<th>Spoken language:</th>
</tr>
</thead>
<tbody>
<tr>
<td>explicit</td>
<td>implicit</td>
</tr>
<tr>
<td>standardized</td>
<td>varied</td>
</tr>
<tr>
<td>sender and receiver separated</td>
<td>sender and receiver together</td>
</tr>
<tr>
<td>monologic</td>
<td>dialogic</td>
</tr>
<tr>
<td>&quot;context-free&quot; or &quot;decontextualized&quot;</td>
<td>&quot;context-dependent&quot;</td>
</tr>
<tr>
<td>product in focus</td>
<td>process in focus</td>
</tr>
<tr>
<td>permanent</td>
<td>ephemeral</td>
</tr>
<tr>
<td>static</td>
<td>dynamic</td>
</tr>
<tr>
<td>discrete</td>
<td>continuous movements</td>
</tr>
<tr>
<td>learned in secondary socialization</td>
<td>learned in primary socialization</td>
</tr>
</tbody>
</table>

⁹⁰See e.g. Goes & Martlew, 1983, p 217; Lundberg, 1984a, pp 12-21; 1984b, p 52.
⁹¹See e.g. Linell, 1982, pp 5-11.
THE CHARACTERISTICS OF WRITTEN LANGUAGE.

In his argument that written language differs from spoken language, Linell (ibid.) admits that there is some overlapping. For example he states that

> There are spoken genres, in which language is used very much as in certain written styles, and, conversely, writing can sometimes be deliberately used for mirroring certain speech styles.

(ibid. p 10)

This implies, among other things, that a more implicit language is more often connected with spoken language than with written language, but may in principle occur in both media. I will go one step further and state that implicit language occurs to a much higher degree in written language than has been noted in the normative linguistic research that has dominated this field.

As evidence for this claim I would like to refer firstly to the readings and writings of the children in the present study, and secondly to a non-systematic investigation carried out on two different occasions by my students in a university course concerning the learning of reading and writing. From these investigations of both young, inexperienced, and old, experienced, readers and writers it is obvious that the daily written language activities primarily consist of the reading and writing of very "simple" texts, "simple" in the sense that it is implicit language, e.g. the reading and/or writing of signs, lists, check lists, short messages, telegrams, calendars, notes, rough copies, headlines, advertisements, TV- and radio program, and so forth. Since these investigations were not carried out in a systematic way, I call for such a systematic investigation, one that not only looks at the reading and writing of officially published texts, but at texts actually read and written in daily life by different groups of people. However, awaiting the results of such an investigation, I dare to forecast that it will be found that there are many more "simple" texts in the above sense that are used than has been indicated by traditional research within this field.

Furthermore, the "simple" texts do not always follow the standardized norm as described in the grammar of a particular language. They are ungrammatical with respect to orthographic, morphological, syntactic, and semantic aspects. Idiosyncratic spellings and choices of expressions, abbreviations, incomplete sentences, and so forth, will be found in this kind of texts. This is probably more so in texts produced in

the early stages and in texts of a more private character. But, today it also seems to be a not uncommon trait of the language of advertising. In other words, as in spoken language, it is possible to find variation in written language. Deviations from the norm are sometimes deliberate, and other times non-deliberative.

One reason why this type of texts can occur in written language is that the reader and writer know one another in some way or other. In a physical sense they are often separated, but not always, e.g. sending notes to one another during class, or taking notes for oneself. However, this trait of written language that sender and receiver are physically separated has been given too much emphasis. In communication the physical distance between sender and receiver is not of any main concern, but the psychological distance. In order to have successful communication, the reader and writer must know one another or get to know one another, i.e. to create intersubjectivity. This is the case not only for the reading and writing of "simple" texts, but for the reading and writing of all types of texts. A good writer knows his reader/-s, and the reader/-s know the writer either personally, or through his and his fellow writers' earlier writings. This is, I claim, the normal and unproblematic case for written language as well as for the talker and listener within spoken language. The atypical and problematic case in written language activities as well as in spoken language activities is when the writer/talker and the reader/listener are both physically and psychologically separated. This situation demands a very explicit language use. Examples of such problematic cases are lecturing, and the writing and reading of laws (see Gunnarsson, 1988, pp 97-104). A law takes many people to write in order to get it to function properly within society.

This discussion points, furthermore, to the next trait supposed to be a characteristic of written language. That is, that written language is monologic. By this is usually meant that the reader and writer work alone. But as in the case with the reading and writing of laws it is not unusual that readers and writers cooperate, or get help from other persons in their reading and writing. This kind of dialogue in written language activities is also a technique recommended in some reading

92 Cf. Lat. communicare = to make common.
93 Cf. the reading and writing of the children in the present study.
and writing programs, e.g. "directed reading-thinking activities"\(^{94}\), and "the writing process"\(^{95}\). The concept 'dialogic' may be extended to also cover written correspondences. Furthermore, in such an extended fashion it may cover the case when a reader/writer reads/writes a text on several different occasions, since the reader/writer can be regarded as reading and writing the text in dialogue with himself. Another type of extension of the concept 'dialogic' is the circumstances when a reader/writer knows his counterpart/-s so well that he is able to take part of a thought dialogue with his counterpart/-s. Thus, many types of written language activities may be considered to have a dialogic character.

The characteristics discussed above are sometimes summarized under the heading "decontextualized language" or "context-free language", where the third of these characteristics usually is regarded as the cause of the other three. According to Smith (1984) this is an infelicitous term. He states that "... it is not strictly correct to suggest that any language, written or spoken, could ever be entirely decontextualized." (p 146). However, I would claim, that it is a misuse of or in stronger words a misconception of the term 'context'\(^{96}\). A context is the whole situation that is relevant to an event\(^{97}\). Thus, all events, including written language events, have a context. All language events are by definition contextualized. Halliday (1978) states that

In general, the ability to use language in abstract and indirect contexts of situation is what distinguishes the speech of adults from that of children. Learning language consists in part learning to free it from the constraints of the immediate environment. (ibid. p 29)

Thus, it is not the context that abstract and explicit language is liberated from, but the constraints of the immediate physical environment. A better term for the phenomenon called "decontextualized" language would be 'formal language' in contrast to 'colloquial language'.

However, the most problematic part of this kind of description of written language is that it is not written language that is described, but the writing system. It is not the use of the writing system, i.e. the dynamic linguistic sign, that is described but the writing system itself, i.e. the static linguistic sign. This becomes even more obvious in the description of written language as having its product in focus, where this product is permanent, static, and discrete. According to the discussion in chapter 3, this way of describing written language is a result of a grammatical view. In this section it was also concluded that written language is ephemeral and dynamic. It consists in a continuous movement, where the process is in focus.

The characteristics supposed to be a description of just spoken language are also characteristics of written language. In chapter 3 it was stated that the distinction between spoken and written acts may not be made within a linguistic conceptual frame of reference. Thus, from a linguistic point of view, the distinction between written, spoken and sign language has no meaning. But, in a physical/medial perspective language may be divided into spoken language, written language, sign language.

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\(^{94}\)See e.g. Stauffer, 1969.

\(^{95}\)See e.g. Björk et al, 1988.

\(^{96}\)Because of this misuse of the term 'context', I have avoided to use it in this thesis, except for the cases when references are made to the work of others where it is used.

\(^{97}\)Cf. Lat. contextere = to weave together.
and written language are considered to coincide from a linguistic point of view, it is possible to find characteristics common to the learning of these two languages. These common characteristics will be found by comparing the language activities that occur in different developmental phases of spoken language learning and written language learning.

The first developmental phase of comparison is the propaedeutic phase. In spoken language activities the child performs cries, screams, coos, and gradually also babbling. These expressions should be compared to pre-reading and pre-writing in written language activities. The cries, screams, and coos may be compared to the imaginary readings and the writing of scribbles, while the babble may be compared to the retelling of e.g. children’s books and the graph-writing. In the last type of act, the first steps towards the correct use of the instruments from a grammatical point of view are made. However, it is in the interaction with another person, who most of the time accepts and answers these expressions as attempts to communicate, that they become language acts. The interactions function as preparatory courses of communication, as proto-conversations and proto-activities within written language, respectively.

The second developmental phase is the verbal phase, which will be divided into two steps. The first of these succeed the propaedeutic phase. In this phase the child performs one-word utterances in spoken language activities, which will be compared to restricted effective reading and writing, i.e. whole-word reading and writing, reading by the setting, and copy-writing. From a grammatical point of view, with respect to the size of the grammatical unit used, there is a perfect match between the language activities. They consider one word at a time. The expression is furthermore made up of a non-analysed whole, which may have a more extended meaning than is usually connected with the word as such, a so-called holophrase. In this development, reading by the setting, and copy-writing may be compared to under-extensions occurring in children’s talk. That is, the similarity consists in the fact that the use of the expressions is restricted to certain settings. The expressions in both spoken language activities and written language activities are learned in point-and-name routines in interaction with others. The child learns to label the world within spoken language and written language. Within the data presented here the written labeling is much more restricted than the spoken. It mainly concerns the act of putting name-labels on persons. But in other investigations of early literacy, there is a much greater variation of expressions used. The next step in the development is the ability to use complex utterances, which from a grammatical point of view consist of two or more words in combination. The child is on his way to becoming a developed talker/listener/writer/reader.

Another similarity between the developments of spoken and written language is the successive move from concrete and immediate topics to abstract and mediated topics. This is so in written language learning even though this development is displaced in relation to spoken language learning by several years.

However, it is in the move from one-word utterance to complex utterance that a difference between spoken language learning and written language learning is found. It consists of the extensive use of grammatical metalanguage activities within written language learning. Nevertheless, as has been stated previously, the grammatical metalanguage activities are not the learning of written language but a support in the learning of written language. Furthermore, there is nothing peculiar in the fact that grammatical metalanguage activities play a much more extensive role in the learning of written language than in the learning of spoken language, since the writing system is the base for and the example of a grammatical description. In the present study the parents play an important role in bringing it about that the grammatical metalanguage activities come into use as often as they do. But even if the child is on his own he discovers the correspondences that are possible to establish between the writing system and the pronunciation of the writing system.

Thus, it is only in this case that the comparison made in Table 32 is relevant in some parts. However, it is possible to find grammatical metalanguage activities in spoken language learning too, e.g. in the form of speech play. According to Sanches & Kirshenblatt-Gimblett (1976, p 102-106) different types of speech play may be considered. The

98 See also Söderbergh, 1986 (pp 645-658) for such a comparison.

99 See e.g. Söderbergh, 1986, pp 648-651.

100 See e.g. Söderbergh’s (1971, pp 32-106; 1986, pp 651-654) description of her daughter’s reading in the early stages, which changes from whole-word to morphematic to syllabic to graphematic reading.
earliest form is spontaneous and improvised speech play, e.g. babbling. The next form is disciplined speech play, e.g. rhymes, taunts, songs, and verses. Coming later is the speech play verbal art, e.g. prose narrative. In their data (age: 5 - 14), which concerns the intermediate stage with rhymes, Sanches & Kirshenblatt-Gimblett found a shift in the child's concerns from phonological to grammatical to semantic, and finally to sociolinguistic levels of language. However, the question of to what extent and in what way these kind of activities contribute to the development of spoken language, and whether this contribution has a similar structure to grammatical metalanguage activities have in the learning of written language will be left for future research to discuss.

Another difference between the ways of learning spoken and written language is the time for the entrance of metalanguage activities. In the present study these acts come into use already in the propaedeutic phase, which it is not possible to find in the development of spoken language. An explanation is that the child is not able to perform them in spoken language at such an early stage. On the other hand an explanation of the early use of them in written language is that written language is the marked case, while spoken language is the unmarked case and therefore needs no extra comments.

Since the development of the languages have so much in common from a linguistic point of view, it should also be possible to learn them simultaneously. However, so far there are not many children that have been given this kind of opportunity, even if some are found. Whether this is an effect of nature or nurture, is here left until further investigations have been made. But still, it is possible to state that written language may be learned in the so-called primary socialization.

**CONCLUDING REMARKS.**

Most of the differences claimed to exist between spoken and written language learning are a result of the fact that the two processes have been looked at from two different perspectives. If they are looked at from the same perspective, e.g. a linguistic perspective, many similarities are found. The possibility of finding similarities and differences is not primarily a product of the behaviour as such, but a product of the way of looking at the behaviour. Furthermore, if the perspective cho-
14. SUMMARY AND PEDAGOGICAL IMPLICATIONS.

THE STUDY.

The present study originated in an ambition to find out the character of the reading and writing programs used during the early stages of learning. It has been discovered that what here has been called a traditional reading and writing program consists primarily of a technique based on the static linguistic sign. Furthermore, it has been found that the children in the present study have participated in reading and writing activities primarily based on the dynamic linguistic sign, but in which the static linguistic sign is used as a support when needed. One of the best known programs sharing this trait is the so-called Language experience approach. Allen (1976) states e.g.

>To separate language from what it stands for, to pull symbols away from their meanings, and to teach about the symbols without teaching about the experience would be an empty sort of task. (ibid. p 37)

Thus, it is not anything new that has been found out, with respect to the program as such. On the contrary, this type of language education has been discussed for quite a long time. For example, Petrus Ramus (1515-1572) is an early spokesman for such a language program. One of his most important contributions to the pedagogical discussion concerned with language learning/teaching was the suggestion that the traditional grammatical cramming should be exchanged for practical language exercises. However, what is new in this study is the attempt to elucidate the characteristics of the static linguistic sign and the dynamic linguistic sign, and the difference between them, moreover the reasons why languageing is the prime object in learning to read and write, and why grammatical treatment is just a support in this learning act. The practical consequences of these insights will be spelled out in the following.

\[101\]See e.g. Allen, 1976; Hall, 1976; Leimar, 1979; Stauffer, 1970.

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TO CREATE A LANGUAGE SPACE: LANGUAGEING, THE PRIME MOVER, IN HARMONY WITH THE USE OF TECHNIQUES.

The first pedagogical implication of the present study is that reading and writing develop in what here will be called a language space which is characterized by the fact that the child is given many opportunities to experience languageing within both the spoken medium and the written medium, and to make explorations of different reading and writing behaviours, both on their own, and together with others. In the early stages therefore many different types of reading and writing behaviours occur. They are accepted and tolerated, but successively their effectiveness is put into question. Furthermore, reading and writing are already from the beginning given equal status. They interact with one another and in this way reinforce one another. The child gets to learn that what he writes can be read, and what he reads is written by somebody who wants to share something with him. He gets to know what it means to share meaning within written language. Nevertheless, some children favour reading over writing, while others favour writing over reading.

Texts to be read and written by the child are in the early stages taken from the child's immediate surroundings. It is colloquial language that is used. They consist of "simple" texts, that concern topics well-known to the child. One of the most prominent topics in the beginning is the name of near and dear persons. However, as the child experiences the reading and writing of other people, when they read and write more advanced texts, concerned with topics that are of interest to him and engage him, his desire to do the same seems to increase. This desire is also strengthened when the child participates in situations where a more advanced language is needed. In this way he is given reasons for the use of different types of language. The child is led into the use of formal language by a successive expansion of his written world of meaning.

Furthermore, the discussion of language plays an important role in this development. The discussions concern both the content and function of the texts, how they are related to the reader and the listener. They also concern the handling of the language object in the reading and writing acts. This means that grammatical treatments are enclosed in languageing. In this way the place where they fill an important function in practice is demonstrated.
However, voices may be raised against the idea that grammatical treatment should belong within the language space. A reason for this argument would be that the rules of grammar are not always correct, since they do not cover all types of language use. But this argument is based on a false notion, namely the notion that grammar could make claims to uncover language use. Contrariwise, grammar is a description of the static linguistic sign. Within a grammatical treatment it is not language use that is treated, but a language object. The teaching of languageing and the teaching of grammar deal with different topics. They do not compete over the same type of activities. The teaching of grammar is one important complement to the teaching of language. The language space holds both the teaching of language and the teaching of different techniques as e.g. grammatical treatment. It is only within the realm of languageing that the techniques can be understood and make sense as supports when languageing goes wrong.

TO USE A VARIETY OF TECHNIQUES: GRAMMATICAL TREATMENT, AND SO FORTH.

The second pedagogical implication of the study is that different types of techniques are used and that they complement each other. Some techniques are favoured at certain periods, or by certain children, other techniques are favoured at other periods, or by other children. The techniques found in the present data are:

- let others do it for you,
- draw inferences from the setting in order to read an unreadable expression,
- use models (e.g. in a dictionary) and copy them,
- let another person lead you in a grammatical dictation,
- use different types of grammatical treatment all by yourself

In the early stages the child just performs the reading and writing himself; he is in no need of a technique, or others do it for him. But later on the grammatical treatment becomes the most commonly used technique, and the most prominent one. Other situations within which the grammatical treatment occurs are e.g. a game or a riddle. The principles of the alphabetic writing system are often treated in such functional situations and not as isolated skills.

Exceptions to this are primarily the principle of invariance and the principle of linearity, which are discussed in separate situations. However, they are used in the form of comment performances in reading and writing. The treatment of these principles is a good example of the interplay which prevails on one hand between the media of conversation, reading and writing, and on the other hand between theory (grammatical discussion) and practice. The letters are discussed in the medium of reading together, but used in the form of comment performances in the medium of writing together. The incomplete linearizations are on the other hand both discussed and performed in the medium of conversation, while the more complex complete linearizations are discussed in the media of conversation and writing together, but used in the form of comment performances in the medium of reading together.

Since the ability to perform grammatical treatment is neither innate nor mentally stored but part of our culture, it is transmitted within the realm of social interaction. Dialogue is the prime form for this type of educational setting. This implies that the most prominent technique in reading and writing can be learned orally, without the use of the instruments of the written medium. To begin with, some children are also allowed to work only orally.

The child's first and in most cases incorrect attempts to handle the language object from a grammatical perspective are more often overlooked than modified. Later on it is the other way around. In the early stages the grammatical principles are also treated one at a time, but later on they are treated all together in the first place in the operation synthesis-in-analysis, and in the second place in the operation analysis-in-synthesis. This may be interpreted as an adjustment of the child and the adult to the facts

- that the principles of the alphabetic writing system are ordered in relation to each other,
- that it is not possible to treat a grammatical principle correctly, if the prerequisites are not known,
- that the operation of synthesis-in-analysis connected with grammatical writing is less complex than the operations analysis-in-synthesis connected with grammatical reading, and therefore grammatical writing precedes grammatical reading.
Other reasons for the fact that grammatical writing precedes grammatical reading are firstly that it seems easier to take the principles one at a time within grammatical writing, and secondly that the grammatical writing situations are more information-dense.

In order to be able to help the child with grammatical treatments, and to know whether and how a certain treatment is applicable and appropriate, the teacher must be very well acquainted with the grammar of the language in question.

Another technical aspect of the way reading and writing acts are performed, is the types of writing instruments that are used. In writing paper and pencil is the most common, however the pencil is sometimes exchanged for crayons, a paint-brush, and water-colour, or a typewriter. There are also instances when a child forms things, e.g. branches, into letters and texts. The texts that are read stem from all types of text setting found in the child’s immediate surroundings, e.g. signs, lists, headings, advertisements, and so forth. This implies that the classroom may with advantage be filled with the kind of text well-known to the child.

However, even though it is possible to treat grammatical aspects both without the use of writing instruments and outside the setting of reading and writing, I do not claim that it should be taught in “preparatory courses” within the pre-school as suggested by research workers within the field of metalinguistics, in order to adjust the children to a traditional reading and writing program used in school. If it is to be taught within pre-school, this ought to be because the pre-school teacher is asked to take part in the reading and writing program, since these activities are part of the reading and writing program. Furthermore, in this case the grammatical activities should not only take place within the situation of a game or a riddle, but also within the realm of reading and writing, in order for the child to see the area of application of the activities.

My claim is, however, that the prime didactic question does not concern how the static language sign is to be taught, but whether it is to have any prominent place at all in the reading and writing program. This means that reading and writing should be taught as languageing, where the manipulation of different grammatical units is an aid among

### To Get to Know the World of Meaning the Child is Living In.

The third pedagogical implication of the study is that in order to adjust to the child, his interlocutors must be very well acquainted with the world of meaning he is living in. In this study this is no problem, since the activities occur within the family. But within school a teacher meets twenty to thirty children, whose backgrounds he is more or less acquainted with. In order to get to know the children, the teacher therefore must make an inventory of each child’s social background, his languageing, and his grammatical metalanguage ability, i.e. what language activities he is used to participating in, what language contribution he is able to make, and how he performs these contributions. The teacher also has to get to know his own world of meaning, in order to find out how he can interact with each individual child in the best way.

That education should take place within functional situations is a principal conclusion. But in that form the thesis may be misinterpreted in such a way that what is a functional situation for some is thought to also be a functional situation for others. This is not always true. For example, to go on a field trip and write about it afterwards may be a functional situation for the writing act for same children, but need not be for all of the children. Therefore the thesis must be modified and state that education should take place within functional situations based on each child’s world of meaning. Therefore the children in the classroom will be working every now and then with different tasks.

### To Prevent the Occurrence of Reading and Writing Difficulties Caused by the Reading and Writing Program.

The fourth pedagogical implication of the study is that in order to avoid the occurrence of reading and writing difficulties because of the

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102 Within this study no PC's were used. But this circumstance will probably change as PC's occur more frequently in the homes.
103 See e.g. Olofsson, 1985, pp 13, 16-17.
program used, the traditional reading and writing program is advised against. It has too narrow a perspective of what reading and writing are. Within this type of program it is grammatical reading and writing that are emphasized. Moreover, it requires previous knowledge of firstly two of the basic principles of a grammatical treatment, and secondly of the function of a grammatical treatment within effective reading and writing.

Within the traditional reading and writing program, it is just one technique that is taught. This implies that children who have problems with breaking free from taught patterns and/or children who have problem with creating techniques on their own are exposed to just the phonological technique. Not to be flexible and not to be able to change technique when necessary is a prominent characteristic of a child who has reading and writing difficulties. This means that a traditional reading and writing program strengthens this tendency. Instead the program should give the child an opportunity to learn a whole repertoire of techniques, techniques that are taught within the realm of effective reading and writing, that are taught in a successive manner, and that are adjusted to the individual child.

Furthermore, the narrow view of how reading and writing are learned, i.e. the individual-psychological view of learning, gives rise to the fact that all problems that occur are unjustly attributed to the child. This view also implies that the child with difficulties, like a laboratory animal, may be put in one variant of the traditional reading and writing program after another. A socio-interactionistic perspective, on the other hand, makes it possible to look at the whole situation, the interaction, in which the world of meaning we live in is created and maintained. It is also within our world of meaning that problems are created, maintained, and solved.

However, even with the help of this sort of advice it is not possible to eliminate all types of reading and writing difficulty. But in order to give the child a fair chance, he must be given the opportunity to take part in a learning situation void of hindrances inherent in the reading and writing program. This is a step that must be taken care of before remedial education is considered for the child. Thus, in the first place the traditional reading and writing program should be remedied by being exchanged for a program based on the dynamic linguistic sign. Furthermore, the prerequisite inherent in the program used must be elucidated, in order to avoid the situation that some children will not understand the reason for participating in an activity, or do not know the prerequisites of the activity.

A DILEMMA FOR THE TEACHERS.

It is not possible to manipulate or to talk about the acts of effective reading and writing. When we want to discuss the reading and writing acts we are confined to a metalanguage treatment or a grammatical metalanguage treatment. Effective reading and writing can only be shown, not talked about. The dilemma for the teacher consists in the fact that a program primarily based on the dynamic linguistic sign requires that reading and writing are shown in the form of effective reading and writing in many instances, but that 'to show' in this sense is not in agreement with the traditional interpretation of the concept 'to teach'. This is so even though the concept 'teach' has a basic sense of 'to show' or 'to demonstrate' (Webster's, 1978). Traditionally 'to teach' has the sense "to tell somebody how to do something in the right way". This means that the tradition demands the use of grammatical reading and writing in the teaching of reading and writing.

Thus, working with a program based on the dynamic linguistic sign, such as in the language experience approach, does not only require the teacher to attain a new perspective of reading and writing and of the teaching of reading and writing. It also requires the teacher to break away from traditional "methods" and to create a new, flexible approach that so far does not have many adherents. The suggested course is therefore not an easy one to take. But what should not be forgotten is that this is the easiest way for the child. To those who hesitate I would like to put forward the following two questions as a conclusion to this thesis:

For whom does the school exist?

and

Why cannot the school consist of a language stimulating milieu?
BIBLIOGRAPHY.


APPENDIX A.
ORIGINAL EXAMPLES IN SWEDISH

Exempel 1. Barn: 11 - 3:1 - Flicka
B. leker med små plastbrickor med bokstäver (versaler) på. B: s namn är Majsan.
1. B: Jag vill lägga Majsan. Först en Majsan bokstav (morfar M). Sen en Albin (morfar heter Albin)). Vad kommer sen?
2. M: /j/ som i Jan (M. och B. letar tillsammans (morbroter heter Jan)).

Exempel 2. Barn: 10 - 4:2 - Flicka
1. Affären: B: Vad börjar potatis på?
M: /p/.

Exempel 3. Barn: 5 - 6:2 - Pojke
B. läser väldigt mycket. I stort sett antagligen uppsnappade på dagis.

Exempel 5. Barn: 5 - 6:2 - Pojke
B. leker med små plastbrickor med bokstäver (versaler) på. B: s namn är Albin.
Exempel 6. Barn: 3 - 4:5 - Flicka
1. B: (pekar på ett paket till morfar Gustav.) Står det Gustav där?

Exempel 10. Barn: 2 - 4:9 - Pojke
2. M: Hur vet du det?
B: Det vet jag ju inte. Jag kan inte läsa fattar du

Exempel 12. Barn: 3 - 5:0 - Flicka
1. B. går nöjd in i sitt rum och stoppar blocket i sin namnlappar som sitter vid barnens fack.

Exempel 13. Barn: 9 - 4:4 - Pojke
B. skriver sitt namn på små inbjudningskort till båda sina mammaer.

Exempel 14. Barn: 9 - 4:3 - Pojke
1. B. titta på en tidningssida med bara text.
2. B. läser bokstaven i orden <SPÅNNANDE>, och på bokstaven </A>.</>.</>
3. M: Ja, det gör det!
4. B. och M. klistrar upp och knippar upp <ANN>.

Exempel 15. Barn: 9 - 4:3 - Pojke
1. B. (pekar på ett paket till morfar Gustav.) Står det morfar där?
3. B. Rita det mamma i mitt block!

Exempel 16. Barn: 5 - 6:2 - Pojke

Exempel 17. Barn: 1 - 7:1 - G
1. B: (pekar på ett paket till morfar Gustav.) Står det Gustav där?

Exempel 21. Barn: 6 - 4:3 - Flicka
B. och M. är ute och går.
1. B: Vad är det för en bil?
3. B: Det är en potatisbil, men det är inte ljus.

Exempel 22. Barn: 11 - 3:1 - Flicka
B. går i ett hem som man också kallas "bokstavsbarn". B. kan släppta bokstäver på plats i ord/minut.

Exempel 23. Barn: 5 - 4:10 - Pojke
B. tittar på en handducksdukt där "Elisabet" står textat.
3. B. Men det hörs som det var bara ett.

Exempel 24. Barn: 5 - 4:11 - Pojke
F. tittar på en affisch där <ELLER> står på spisen; <INPUTS> står på förstärkaren.)

Exempel 25. Barn: 10 - 4:2 - Flicka
1. B. försöker med att skriva "bokstavspapper" som hon kallar det. Hon skriver de bokstäver hon kan se på små lappar, som blir helt täckta av bokstäver.

Exempel 26. Barn: 6 - 5:5 - Flicka
B. tjar och sjunger i sitt rum. Hon håller på och "låser" bokstäverpilslagen för full han. Kan nämligen att

Exempel 27. Barn: 4 - 5:0 - Flicka
B. och M. försöker ett botaniskröd tillsammans. B. har skrivit "<BDNO>, lego, Luxe, Aig, inputs".

Exempel 28. Barn: 11 - 3:2 - Flicka
B. läser annonsen. B. tittar på ordet <ANANAS>.
3. B: Som i Nils och där är en Nils till ... och där är en Albin till (pekar på <A>) i mitten.

Exempel 29. Barn: 9 - 4:3 - Pojke
1. B. och M. är ute och går.
2. M: Nej, lyssna /a-n-d/!
3. B: /æ/.

Exempel 30. Barn: 11 - 3:2 - Flicka
1. B. och M. tittar på en affisch med texten: "DE LUXE och AEG står på spisen; INPUTS står på förstärkaren.

Exempel 31. Barn: 11 - 3:1 - Flicka
B. och M. tittar på en affisch med texten: "SÖDHOLMSK MUSEET".
1. B. Det här är ett bokstavsord som sitter vid barnens fack.

Exempel 32. Barn: 11 - 3:1 - Flicka
B. läser på en affisch med texten:<SÖDHOLMSK MUSEET>.
1. B. Som i sommar när det är sommar.

Exempel 33. Barn: 11 - 4:3 - Pojke
1. B. (pekar på en bokstavspapper) Står det morfar där?
3. B. Rita det mamma i mitt block!

Exempel 34. Barn: 11 - 4:3 - Pojke
1. B. (pekar på ett paket till morfar Gustav.) Står det morfar där?
3. B. Rita det mamma i mitt block!

Exempel 35. Barn: 7 - 4:3 - Pojke
1. B. (pekar på ett paket till morfar Gustav.) Står det morfar där?
3. B. Rita det mamma i mitt block!

Exempel 36. Barn: 7 - 4:3 - Pojke
1. B. (pekar på ett paket till morfar Gustav.) Står det morfar där?
3. B. Rita det mamma i mitt block!

Exempel 37. Barn: 7 - 4:3 - Pojke
1. B. (pekar på ett paket till morfar Gustav.) Står det morfar där?
3. B. Rita det mamma i mitt block!

Exempel 38. Barn: 7 - 4:3 - Pojke
1. B. (pekar på ett paket till morfar Gustav.) Står det morfar där?
3. B. Rita det mamma i mitt block!
Exempel 29. Barn: 1-6-7- Flicka
B. skriver <LS> (= "5-års lekar")
B: Jag förkortar.

Exempel 30. Barn 2-59 - Pojke
1. B: Korak och Orak är nästan samma ord.
2. M: Ja, vad är det Korak börjar på som inte finns i Orak?
4. M: Ja, vilken bokstav är det?

Exempel 31. Barn: 5-6-3 - Pojke
B. läser ordet <busso>.
1. B: Tar man bort ett <s> har inte läsning på orten där det står.
3. B: Rörmokare, mokare vad betyder det?
4. M: Ja, det är också en rätt bokstav.
5. B: Vem var det?
6. M: Nej, och sen?
7. B: Prøva själv först!
9. B: Kan du hjälpa mig att skriva det ut?
10. M: Ja, och sen?
11. B: Hur skriver man Jesus?
12. M: Gansinnig säger ju bara små barn och kanske mamma och pappa.
13. B: Jag låtsas-läser på verktygslåda där det står: "<TAXI>"
15. B: Nej.
17. B: Hur ser det ut?
18. M: Det går inte. (F och B. hjälps åt.)

Exempel 32. Barn: 5-4-3 - Pojke
B: Hur skriver man Jesus?
1. M: Jag ber gansinnig.
2. B: Det heter vansinnig.

Exempel 33. Barn: 2-35 - 38 - Pojke

Exempel 34. Barn: 1-6-6 - Flicka; Barn 2-6-4 - Pojke
B2 låtas-läser på verktygslåda där det står:

Exempel 35. Barn: 1-6-7 - Flicka

Exempel 36. Barn: 1-6-7 - Flicka
B: Hur skriver man Jesus?
1. M: Jag ber gansinnig.
2. B: Det heter vansinnig.

Exempel 37. Barn: 1-6-7 - Flicka
B: Han kanske heter. Ingenting precis som Hai
4. B: Hur se det ut?
5. M: Nej, det står <k>.
7. M: Nej, det står <k>.
8. B: Nej, det är likadant själv.
9. M: Nej, kan du hjälpa mig att skriva det ut?
10. M: Nej, och sen?

Exempel 38. Barn: 1-7-1 - Flicka
B: Vet du vad ett ord är.
1. B: Nej.
3. B: Hur se det ut?
5. B: Det är i huvudet.

Exempel 39. Barn: 2-52 - Pojke
B: Rörmokare, mokare vad betyder det?
1. B: Bem hur det är.
5. B: Nej.
7. B: Det är i huvudet.

Exempel 40. Barn: 1-6-7 - Flicka
I bilen.
1. B: Var var det?
3. B: Varför heter han inte Borgde?
4. M: Ja ...

Exempel 41. Barn: 1-6-2 - Flicka
1. B: Vuur. Har du slutat saga på tomen än?
2. B: Nej ... Jag har aldrig börjat.

Exempel 42. Barn: 1-7-3; Flicka; Barn 2-5-1 - Pojke
Exempel 57. Barn: 1 - 6:10 - Flicka
B. ligger i sin säng och är på väg att somna, men innan dess leker hon med sitt namn ungefär som hon skulle snaqa på det.
1. A: /a-/i-s, a-/i-s, a-/i-s/.
Exempel 58. Barn: 3 - 4:5 - Flicka
1. B: Finns det /<b> i Lilla My.
Lilla /<m:-y/>.
Exempel 59. Barn: 10 - 4:3 - Flicka
1. B: Polla och Bill. Det passar ju ihop. Vilken bokstav börjar Bill på?
2. M: /<m>/.
3. B: Då börjar ju Bolla också på /<b>/.
B. och M. samtalar om andra namn och ord som börjar på /<b>/.
Exempel 60. Barn: 10 - 4:3 - Flicka
1. B: Hur låter det om man tar bort /<b>/ i Klara?
2. M: Lara
B. "tar bort" en bokstav i taget och vill att M. talar om hur det låter. Går också igenom övriga familjemedlemmars namn.
Exempel 61. Barn: 3 - 4:6 - Flicka
1. B: Såg ett ord som börjar på /<b>/!
2. M: /<m>-/ak/.
3. B: Nu är det min tur.
Exempel 62. Barn: 2 - 5:2 - Pojke
Iäggen: B. and M. har just diskuterat vad ordet 'nyns' betyder.
1. B: (tyst för sig själv) Nyns, nyns, nystan.
Exempel 63. Barn: 10 - 4:3 - Flicka
B. sitter och "läser" ur en av sina böcker och säger efter en stund:
1. B: Hör ni att jag läser på riktigt.
Exempel 64. Barn: 1 - 6:10 - Flicka
DUMMAR • STRÖ • HEJ • SOCKER • GODIS • MJAU • JAG • NÖTTER • KAM • GOD • VOWOW • 1:10 • VETMÖJL • KOR • TÄLT • TUPP • PLÖTÅ • Bii • Ö • 1:100 • TUPP • FREDIK • ANKA • 1:100 • 1:10 • TIGER • APN
Exempel 65. Barn: 11 - 3:2 - Flicka
B. pekar på ordet 'och' i en text på ett mjölkpaket.
1. B: Där står det och.
2. M: Ja, det gör det.
3. B: Står det nämligen stort? (pekar svepande över texten)
4. M: Titta här nerel (pekar på de två nedersta raderna där 'och' står tre gånger)
5. B: Där står det och där. (B. hittar två av de tre)
Exempel 66. Barn: 1 - 6:3 - Flicka
1. B: Här står det smöre. (B. pekar på smörpaketet)
Jag gissar inte.
Exempel 67. Barn: 10 - 4:3 - Flicka
B. titter på ett paket djupfryst rabarber som står för att tittas.
1. B: Vad är det här?
3. B: Står det rabarber här? (pekar på den skrivna etiketten)
5. B: (pekar på ordet och ljudar högt:) /ra-bar-bär/.
Exempel 68. Barn: 1 - 6:1 - Flicka
B. läser på en kornmjölspåse där det står: <KORNMJÖL>.
1. B: /k-w-/j, här står det kor.
2. M: /k-w-/j, /k-w/-i/, det står kornmjöl.
Exempel 69. Barn: 2 - 5:8 - Pojke
1. B: Hur skriver man Röde Örn?
2. M: /<m>/.
B. pekar på ordet 'och' i en text på ett mjölkpaket.
Exempel 70. Barn: 5 - 5:11 - Pojke
1. B: Hur stavas platta med två /<m>/?
9. B: Nå kan jag stava en utan att ljuda, /<m>/, no?.