The divisions in transformational grammar into surface and deep structure give rise to the hypothesis that imitative-repetitive drills will never go beyond the surface structure, and that an explicit verbalization of underlying structures will result in better achievement and proficiency in second language learning. The Project described here, carried out in English classes in Gothenburg, Sweden, attempted to test this hypothesis and to find out whether the same method would work equally well at different age and intelligence levels. Three methods were used: one "Implicit," in which the pupils practiced the "do" verb construction in oral and written drills without explanations or theoretical comment; and two "Explicit," one in which explanations are given in English, and one in which explanations were given in Swedish. Apart from the explanations, the lessons in all three groups were identical. Pupils were also grouped according to IQ; in the low intelligence groups, the "Implicit" method was considered the "best." Among the more intelligent pupils, no significant differences were found. It was felt, however, that if explanations were given, they should be in Swedish. Also, one reason for the low "Explicit" scores may be that explanations were of a transformational kind. [Not available in hard copy due to marginal legibility of original document.]
GUME-projektet 1
Göteborg
Undervisningsmetod i engelska

Torsten Lindblad

IMPLICIT AND EXPLICIT –

An Experiment in Applied Psycholinguistics,
Assessing Different Methods of Teaching Grammatical Structures in English as a Foreign Language
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An Experiment in Applied Psycholinguistics,
Assessing Different Methods in Teaching Grammatical Structures in English as a Foreign Language

by

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Gothenburg, Sweden, June, 1969
"se cræft hæs læreowdomes bid cræft ealra cræfta"

("the art of teaching is the art of all arts")

from King Alfred’s translation of Gregory’s Pastoral Care (c. 895)
The present thesis is a report of the first part of the first-year study of a larger project, called the GUME Project (Göteborg, Undervisnings-Metod i Engelska). It aims to investigate the relative effectiveness of three different methods of teaching certain grammatical structures to Swedish pupils aged 14 in their fourth year of English.

This project deals with the teaching of the do-construction in questions and negative sentences. The other two parts of the first year study deal with some-any (to be reported on by the project leader Ingvar Carlsson), and the passive construction (to be reported on by the project leader Margareta Olsson) respectively. The project is planned to go on for at least one more year.

Grants from the Board of Education, bureau L 4, have made this project possible, and I should like to express our gratitude for their help. I am also extremely appreciative of the help and courtesy extended by Lumalampan Ltd, Stockholm, in matters concerning the technical arrangements and I am very grateful to Skrivrit Ltd, Stockholm, for permission to use copyright material. My thanks are due to a number of people who have helped me in various ways, in particular Lennart Levin for constructive criticism and invaluable advice in all statistical matters, Mrs Valerie Jenkins-Hedén for correcting my English, Ingvar Carlsson for many discussions and for friendly co-operation, and most importantly to Professor Alvar Ellegård for his constant encouragement.
Abbreviations and References

The three methods used in the project have been abbreviated throughout:

Im = Implicit,
Ee = Explicit, English,
Es = Explicit, Swedish.

In Swedish schools the pupils in the 7th form can choose between two courses in English, one more difficult, called "särskild kurs" ("special course") and taken by two thirds of the pupils, one easier, called "allmän kurs" ("general course"). These have been abbreviated throughout:

sk = särskild kurs,
ak = allmän kurs.

The pupils were divided into three intelligence levels according to their results on the IQ tests; these levels were so constructed as to contain about equal numbers of pupils. The levels were abbreviated:

U = Upper third,
M = Middle third,
L = Lower third.

All references are made in the text, not in a special list of notes. The references are made by giving the name of the author, the year of publication of the text according to the bibliography, and, when necessary, by page.
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INTRODUCTION

Project History. In January, 1967, Professor Ellegård, of the English department at the University of Göteborg, held a seminar for the discussion of some basic language teaching problems that would be of interest to a number of people. Most of the teachers at the English departments at the University and the Teachers' Training College took part together with a number of other interested teachers. A series of seminars was held in January and February, and as a result an application was made to the Swedish Board of Education for money to start a project. About one year later money was granted. The Göteborg team which was then set up—consisting of Professor Ellegård, Professor Stukát, Lennart Levin, Íngvar Carlsson, Margareta Olsson, and the author—joined the long-established UME Project in Stockholm as a fairly independent cooperative part. There were a number of educationalists and psychologists in the group and the project was planned as and has become an interdepartmental effort.

The intention of the group was to initiate research in the area of language teaching methodology. It was felt that the fields of pronunciation and vocabulary learning were well explored and comparatively easy to deal with, and so it was decided that the project should go into problems relating to the learning of grammatical, primarily syntactical, structures. This is an interesting field for several reasons. It has been rather neglected up till now. It is difficult and thus challenging. Moreover new theories in modern linguistics (mainly Chomsky and his associates) have opened up fresh prospects and given support to old but often neglected theories concerning the learning of languages.

Underlying Theoretical Concepts. In the learning of syntactic structures generative and creative parts of what might be called language mastery are at work in a way that is not matched in the learning of vocabulary for example. The division in transformational grammar into surface and deep structure gives rise to the hypothesis that imitative-repetitive drills, however systematic, will never go beyond the surface structure, and that an explicit verbalization of underlying structures, resulting in conscious con-
trol of the transformational mechanisms at work in the structures under consideration, will result in better achievement and proficiency and a greater ease in generating new sentences. Carroll (1966, p. 105) refers to this as a fact: "In learning a skill, it is often the case that conscious attention to its critical features and understanding of them will facilitate learning."

This verbalization need not, perhaps even should not, be given in the form of rules, but rather as explanations and comments. The theory behind this is that the pupil must learn the "rule" whether it is verbalized for him or not, and that in presenting it explicitly one helps him to find the correct one; otherwise he will, consciously or unconsciously, formulate his own hypothesis which later may have to be adjusted or completely changed (cf Rivers, 1964, p. 120).

Since it seems likely (although far from certain, cf Lenneberg 1966, p. 80) that the understanding of such verbalizations of syntactical structures demands a fairly well developed ability of abstraction, we decided to try to find out whether the same method should work equally well at different age levels and intelligence levels. It is well-established teacher experience that the acquisition of language should travel different roads at different ages but as far as I know this has hardly been proved scientifically. It is interesting to note that already fifteen years ago one of the questions that Carroll (1953, p. 189) felt needed answering by experimental research was "How much help is grammar and linguistic analysis when injected into the teaching process itself?"

After lengthy discussions of different possible methods and names of methods, we decided to use two main models, one called the Implicit method, in which there would be systematic drills but no explanations, and an Explicit method, in which there would be explanations of what the drills were about. This latter method would be split into two, one in which all explanations would be in English and all references be to English, and another in which explanations would be given in Swedish and comparisons with Swedish be made.
1. THE PROBLEM

The Problem

The problem set up for the project was to test the above hypothesis that language learning is facilitated by grammatical explanations and to find ways of giving them. The first step, therefore, was to define the aims of the project and to decide on a procedure.

Aims

The following three aims were set up for the project as a whole:

1. A new language learning (and teaching) hypothesis should be tested. Since the outward realization of the hypothesis is a method, it is equally true to say that different methods of teaching grammatical structures should be tested, so long as it is kept in mind that the methods were constructed on a clearly formulated hypothesis.

2. Possible age and intelligence variations in language acquisition should be tested. Since it turned out to be unfeasible to follow the original plan of using pupils from different age levels, we decided to use only the intelligence variable, i.e., to relate the various methods to pupil ability as tested by an IQ test and to study possible differences. This is a problem of differential psychology of the greatest interest in discussing individualization in schools. Cf Carroll (1953, p. 179, 170, 187) and Rivers (1964 pp. 57 and 94).

3. Diagnostic and prognostic tests should be constructed and tested. These should be based on modern linguistic theory and should aim at testing not only achievement and proficiency but also ability to generalize.

Procedure

For the carrying-out of the project the following procedure was decided on and followed:

1. The task was defined. We were going to deal with second language learning only, i.e., English (German and French are third languages in Swedish schools), at the intermediate level. This meant using pupils in the 7th form, which, at present, means the fourth year of English. Further-
more, we should deal with syntactical problems (for reasons that have already been stated). Since English and Swedish are closely related languages and their grammatical structures similar or identical to a large extent, it was decided that we should concentrate on structures which are different, the so-called points of interference, where the pupils have to learn to function in a new way.

2. The differences between the Swedish and the English structures were defined. (Cf p. 39f) below for an outline). This was a necessary preliminary to the working out of the explanations. These were then given in transformational-generative models, slightly adapted for pedagogical reasons.

3. The hypothesis was formulated. (See p. 1f above). "The best research is based on theory and interacts with it, and the best theories are those that can be tested by empirical research" (Carroll, 1966, p. 94). The hypothesis proposed was built on transformational linguistics and the theories and findings of psycholinguistic and biolinguistic study, as outlined above. This hypothesis was then worked into a method, and a contrasting theory, the habit-formation theory (Carroll, 1966, p. 101), which, in its essentials, is the backbone of certain forms of the so-called direct method was also worked into a method. This hypothesis-theory formulation and method creation was the first step in devising material for the lessons for the project.

4. A technical arrangement of a language laboratory kind was decided on in order to eliminate the teacher factor. "If one is truly going to standardize or hold constant the verbal instructions in an experiment, they would have to be acoustically recorded and mechanically reproduced on every occasion on which they are needed". (Carroll, 1953, p. 110).

5. Tests were written and tried out. These tests were intended to measure progress and to be good enough to be used as diagnostic tests. The tests were also to evaluate the pupil's ability to generalize what he had learnt (cf p. 2 above), because "a student who studies a particular material in one situation, such as a language laboratory, may not be able to reproduce it easily in other situations" (Anisfield, 1966, p. 113). Many experts have stressed the importance of this point, e.g, Saporta (1966, p. 90): "performance of the drill does not ensure learning".
6. The above steps were all in a sense preliminary. The next task was to write and record the lesson material, to carry out the project in schools, to evaluate and to report the results. This work constitutes the major part of the present thesis.
2. THEORETICAL BACKGROUND OF THE PROJECT

The Method Decision Procedure

Which is the best method to use in teaching a foreign language? Many people, teachers, administrators, textbook editors, linguists, and, of course, laymen, have answered that question, or tried to answer it. Some answer it quite subjectively. There are a number of factors that must be taken into consideration and agreed upon before a meaningful discussion can be envisaged. Since this thesis is an attempt to bring some little material into this discussion, I would like to start out with what I consider the necessary background for such an argument.

The process through which one might hope to arrive at some kind of answer to the question might be compared to a psychological stimulus-response model which can be schematically represented thus:

**METHOD DECISION PROCEDURE**

<table>
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<th>Output:</th>
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<td>&quot;Computer&quot;:</td>
</tr>
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<td>2. Teacher:</td>
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<td>4. Language:</td>
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Method/s
Input Variables

Objectives. In Sweden the objectives (1) in teaching a foreign language are a centralized decision made by Parliament on recommendations from the Swedish Board of Education. It is a political decision, based on teacher opinions and experiences, of course, but one in which the individual teacher has little or no say. There is fairly little local initiative left as would be the case in England or America, for example. Of course, the objectives should be discussed and criticized if they seem to be wrong in one way or another but this should be done in the correct setting. It is pointless to discuss methods before one has agreed on the objectives. Much debate about foreign language teaching methodology has erred in this respect it seems.

The individual, his personality, training, motivation and background are other factors which are quite often left out of the debate.

Teacher. It seems quite obvious to me that different teachers (2) ought to be allowed to use different methods. This seems a more natural assumption than the one that all teachers should be cast in the same mould and that the teacher who does not fit in must be wrong. I do not intend to go into this problem here, but if factors like oral fluency in the native tongue, ability to "act", training and fluency in and knowledge of the foreign language to be taught - to mention three of the most obvious ones - are taken into consideration, it must be obvious that not all teachers were born to use one and the same method. It has sometimes been said that the good teacher will get good results in his classes whatever method he uses. This may be so. But it is equally true that many teachers will get fairly good results with one method but very poor and unsatisfactory results with another. If we were to do away with all teachers who can not fit into the official system, very little language teaching could go on, I am afraid.

Pupils. Just as teachers are different, so are pupils (3). The two most obvious differences worth mentioning in this context are those of age and of ability or intelligence. It is a well-known and not surprising fact, experienced by myself and by most other teachers who have taught at different levels, that a child of 8 or 9 does not learn a foreign language in the way a grown-up does, and in this case it is probably wise to consider anyone older
than, say 13 or 14, as a grown-up. From this point of view, if from no other, it seems natural to assume that different methods ought to be used in teaching English as a foreign language to nine-year-olds and German or French to 13-year-olds or Russian to 17-year-olds. The young child does not feel a strong need for a written confirmation of what he or she has heard; he or she is still used to learning the mother tongue "by ear" only. But the adult who is not given the text will try to make his own orthographic representation of what he hears. All the above points would be worth investigating scientifically to find out how these things ought to influence our methods. They are not included in the present investigation. The other pupil variable, that of intelligence, is part of the present investigation, however, and therefore I shall leave it for the moment and return to it in more detail later on.

**Language.** The fourth variable, Language (4), is simply to indicate that the assumption quite often made by teachers of French, sometimes by teachers of German and of Russian, that it is incorrect to think that identical methods could be used for teaching different languages, e.g. an analytic language like English and a syntetic language like German, or a Germanic language like English and a Romance or Slavic language like French and Russian, may be valid. I would like to stress at the outset of this thesis that I do not want to draw any conclusions from my results in English concerning the teaching of German or French or any other language. I think these should be investigated separately and not until we have arrived at similar or identical results for the various languages (which I do not think we are likely to do), would it be permissible to extrapolate from investigations concerning one language to another.

**Materials.** The last variable, Materials (5), would concern textbooks, tape-recordings, tape-recorders, language laboratories and so on. The overall plan for the teaching of, say, fourth year English, would of course be different if one had access to a language laboratory three times a week with a fair stock of tapes. This plan, which would be the method, must be seen, of course, in terms of materials too.

If one were interested in getting an answer to the question asked at the beginning for a particular teaching situation, the five variables discussed
so far should be given their different "values". Let us assume that the aim is to teach certain English grammatical structures for active and passive proficiency, to 13-year-old pupils of different intelligence. The teacher should have good fluency and teaching experience, and should have access to any kind of material. How should he go about it? This question can only be answered with the help of the "computer", a kind of machine where these input variables are processed by the four intermediary factors in the box. They are the three scientific aids that ought to be used together with the subjective Teacher experience which has for so long been the only part in the "computer".

"Computer"

I think the results of Psycholinguistics (6) and Linguistics (7), however uncertain, tentative and fluctuating they may be, ought to be taken more into account than has been the case up to now, and so I shall devote two sections to a survey of what seems to me relevant results and developments in these fields (see pp. 10-18).

Language Teaching Methodology Research (8) is the youngest of all the factors. This thesis is intended as a contribution in this very field. The above survey has been an attempt to put the main body of this thesis into its proper setting and thus to give it a background, necessary for the right reading of it. To give a somewhat fuller background I shall attempt to give a brief survey of some of the most recent and interesting projects in this field (see pp. 19-23). The only "computer" factor to be given in this first background sketch is General Teacher Experience (9). It is quite obvious that this is completely subjective and it is hardly surprising that it can be and has been used to defend various opinions and often to attack and criticize others, sometimes severely. I shall try to illustrate this briefly by giving, as a conclusion to this chapter, a short survey of some recent debates on these problems in newspapers and magazines. As a result of all this we may get an answer to my initial question: Which method is the best one? It may be wise to point out now that I do not think it very likely that we shall arrive at any definite, unequivocal answer. What we can hope to do is to arrive at some indications as to where or how we may find answers to some of our problems and what we ought to do, under certain circumstances, with certain pupils to achieve satisfactory results.
Psycholinguistics

Introduction. Psychology as an experimental and objective science is fairly young, little more than fifty years old. Activity among psychologists, however, has been very great, and modern psychology is a well-developed science with a strict methodology. The branch of psychology of the greatest interest to most teachers is the psychology of learning. For general surveys of this field demanding no specialized previous knowledge see, for example, Mednick (1964) and Borger and Seaborne (1966). Similar surveys focusing on the teaching and learning of language are given by Carroll (1953, pp. 71-82 and 106) and by Rivers (1964, pp. 164-192) which is a most excellent introduction.

Psycholinguistics, or the psychology of language, that branch of psychology which deals with the acquisition and use of language, is even younger. It can be said to date back to 1953 (Jenkins 1966), and the interest in this field is thus only about twenty years old. It is still probably true to say, however, that most psycholinguistic theories are based on extrapolations from other kinds of behaviour, and only recently on observations of language behaviour as such. Carroll (1953, p. 70) points out that "there is ample evidence that psychologists have been impelled, by the nature of the case, to mark off verbal behavior as a special class of behavior".

The Two Mainstreams in Psycholinguistics. Although it is simplifying matters somewhat, it is possible, I think, to distinguish two main streams in modern psycholinguistics, which is mainly, but not only of American origin (cf Rivers 1964, p. 29). One is the behaviouristic line, stemming from classical conditioning. This theory of habit formation (sometimes referred to as association psychology) through reinforcement of the stimulus-response relation is built on the work of men such as Thorndike, Pavlov, Watson, and Skinner. Watson took up ideas from Pavlov's experiments and this is called classical conditioning, as opposed to Thordike's operant conditioning, which forms most of the background of Skinner's work. It was also Skinner (Carroll 1953, p. 78) who pointed out "that verbal behavior, par excellence, exemplifies operant behavior". In this group of psychologists there is interest only in what can be objectively controlled and checked, i.e. the stimulus and the response. The "black box" in between, i.e. the human mind, must be outside the scientist's task for this reason. From animal experiments Skinner extrapolated not only to human
behaviour in general but also to human languages, or verbal behaviour as he calls it. The acquisition of language, in the child, and also of a second language in the adult, is reduced to a habit formation theory in which the main principles must be repetition and reinforcement. Another assumption is that the child is born as "tabula rasa" as far as languages are concerned. These theories seem to be the main theoretical pillars of psychology of the so-called Direct Method, or, as its American counterpart is usually called, the audio-lingual method. (Rivers 1964, p. 29). The mechanistic theories sketched above have been seriously criticized and questioned. Fodor (1966, p. 112) says, quite simply: "Notice that imitation and reinforcement, the two concepts with which American psychologists have traditionally approached problems about language-learning, are simply useless here". And Brown-Bellugi (1964, p. 161) say that the "the very intricate simultaneous differentiation and integration that constitutes the evolution of the noun phrase is more reminiscent of the biological development of an embryo than it is of the acquisition of a conditioned reflex". Carroll (1966, p. 104) who is not totally critical of Skinner and who has himself worked along lines similar to his feels that "neither the audio-lingual habit theory nor the cognitive code-learning theory is closely linked to any contemporary psychological theory of learning".

The other mainstream in psycholinguistics is, as I see it, made up of three sets of closely related ideas:

(1) One of these is the development of the "pure" behaviourism of Watson and Skinner, the so-called "purposive" behaviourism or neo-behaviouristic school of a man like Tolman, and the very similar form of it based on Mowrer's theories. This theory differs from the classical in that it is interested in, and places the emphasis on, the "black box", the human mind, where "drives" of various kinds come in. They also stress the "molar" kind of behaviour - as opposed to the "molecular" type - where learning cannot be seen as separate little items but must be seen as related to the whole, to a larger unit.

(2) It is in this last respect that this school (if that term may be used) resembles a completely separate line in modern psychology, originally emanating from Austria and Germany, the so-called Gestalt school. Its main idea is that the whole is not simply the sum of the parts, and from this basic concept that learning should not be the acquisition of little items
without relationships but rather as "wholes", that learning is facilitated if the pupil is made to see connections and reasons for what he is doing. Another aspect of the Tolman-Mowrer group, which has even given it its name, the cognitive school, is the fact that learning, according to them, does not take place at random, not even in trial-and-error learning, but rather that choices are made, not at random but according to a plan built on cognitive maps. This also applies to the child's learning of the mother tongue where "clearly, stimulus-response (S-R) theories are going to be of no help to us" (Slobin, 1966, p. 86). Cognitive learning, which might perhaps be translated as purposeful learning with the help of or utilizing the intellect (which may indeed be small, as in the case of rats learning to find their way through a maze), is then in strong opposition to the mechanistic theory of a man like Skinner.

(3) It is perhaps mainly in this respect that the cognitive school resembles the third part of what I have called the second mainstream in modern psycholinguistics. This is a fairly recent addition to the psycholinguistic debate, but doubtless the most important one. What I have in mind is the contribution of Noam Chomsky, the great innovator of modern linguistics, who has also made some remarkable contributions to psycholinguistics, both directly and indirectly. (It is interesting, in this context, to note that "older" linguists, e.g. Sapir and Bloomfield, preferred to stay out of the psychological debate even though Bloomfield was probably influenced by and showed a preference for the mechanistic theory of behaviour (Carroll, 1953, p. 81). See for examples Sapir (1921, p. 3-4, 8, for his opinions on language acquisition, and Bloomfield (1933, p. 502-505). The importance of modern linguistics for psycholinguistic theory is stressed by De Cecco (1967, p. viii ) who says that "psycholinguistic research has found Chomsky's transformational grammar fruitful theoretical base because transformations are a combined product of linguistic structure and psychological processes within the speaker". And Jenkins (1966, p. 347-349), in summing up a conference on Language Development in Children said that "As a corollary to this/ i.e. the revolution in modern linguistics owing to generative grammar/ psycholinguistics is quite naturally undergoing a violent and far-reaching revision", and "the paradigm of the grammarian will soon be seen to be the most fruitful way for both linguist and psychologist to approach language".
Chomsky instigated all this in some of his books on theoretical grammar (1965 et al.) since his theories for grammatical descriptions are also descriptions of language acquisition. The answer that emerges from the writings of Chomsky (e.g. 1962) and others is that the child is functioning as "an implicit inductive scientist" (Anisfield 1966, p. 115). Chomsky can perhaps be said to have entered the stage as a psycholinguist with his review of Skinner's 'Verbal Behavior' (1959). It is an interesting fact that this review - to my knowledge - has never been refuted by Skinner or anybody else. (cf Chomsky 1965, p. 54). This must be taken as strong evidence for the soundness of Chomsky's criticisms. There are two main contentions that Chomsky makes. One is that we are indeed not born as tabula rasa but rather as predisposed for language. This idea has been further developed by Lenneberg, and I shall return to that below.

The second main point in Chomsky's reasoning is that Skinner and the behaviouristic school in general do not give an explanation for the undeniable fact that a human being, even a little child, can understand and produce sentences he has never heard before. Chomsky has also noticed that even a little child manages to speak his language almost correctly, and that certain types of sentences enter the child's active language later than other simpler types. He feels that we learn the simple deep structures first and only later are the different transformations acquired, so that for example passive sentences come in after active ones, and negative-passive sentences, where two transformations are at work at the same time, come in even later. Miller (1964, p. 103) has also found that as transformational density increases, the length of the time to say the phrases increases proportionally.

All these abilities in the child, according to Chomsky and many others after him, stem from an innate ability. At the end of his review of Skinner (1959, p. 57) he says that we recognize a new item "because it is generated by the grammar that each individual has somehow and in some form internalized". But he points out a little later (p. 58) that this ability is "of unknown character and complexity". Fodor (1966, p. 106) thinks it is "a very general capacity to learn learning principles and that it is such learned principles that the child brings to the problem of mastering his language". This view seems to be well in line with Lenneberg's, but slightly different from McNeill's (1966). Chomsky has pointed out and
stressed that this is by no means a new theory (1965, e.g. p. 51, and 1966, p. 59 ff). Sapir (1921, pp. 3-4) has a diametrically opposed opinion: "To put it concisely, walking is an inherently biological function of man. Not so language." Bloomfield (1933, p. 29-31) also has a theory on how language is acquired. Malmberg (1964, p. 115) expresses an opinion fairly like the modern one, although he puts it slightly differently: "inte ens förskolebarnets språkinlärning är imitativt i den meningen, att det bygger på ett passivt lyssnande och ett mekaniskt imiterande".

What has been said then means that the theoretical grammatical description that we know as transformational generative grammar is also a model for language acquisition. In learning, and teaching, a second language this seems to have two consequences. One is that the native language will interfere with the new one, and that it would be well to concentrate on points of difference and to practise these and more or less leave the others. (cf Malmberg 1964, p. 115). The underlying notion of universal grammar has been dealt with by Chomsky and many of his followers. The other one is that the differences should be pointed out clearly, not just practised, and in this respect he very much resembles the cognitive school in that it uses cognition, intellectual (in the widest and least qualified sense of that word) understanding and not just mechanical repetition and drill. (Cf Carroll 1966, p. 102).

Some Important Writers. It is impossible to write about the psychology of language without mentioning one or two more outstanding names, even though they do not fall into any of the categories that have been outlined so far.

First of all we have the great psychologist John B. Carroll who has devoted most of his time in recent years to psycholinguistics, partly in a large number of research projects of his own, partly - and perhaps most importantly - as an incentive force by suggesting fields that need to be investigated. He has pointed out (1966) that we do not really have an acceptable theory to build language teaching methods on. He proposes a revision of the two major existing theories (e.g. p. 106) and also gives a list of facts that need to be taken into consideration (p. 104 f). "Actually, what is needed even more than research is a profound rethinking of current theories of foreign language teaching in the light of contemporary advances
in psychological and psycholinguistic theory" (p. 105). His famous "The Study of Language" (1953) although rather out of date now - it is pre-Verbal Behavior and pre-Chomsky - is a classic in the field of language study with an emphasis perhaps on its psychological implications. In it he also lists a number of problems that he feels ought to be investigated (p. 194). There will be reason to return to his name several times in the present thesis.

Wilga Rivers is another name that I think ought to be mentioned. She is one of those unfortunately rare people who are both experienced language teachers and well-schooled psychologists. Her opinions on language teaching (together with those of Jespersen, who is, however, psychologically un-scientific) are, to my mind, the soundest that there are. She is well worthy of study by all interested in the teaching of foreign languages. Building on scientific psychological findings she critically and systematically scrutinizes the tenets of the audiolingual method.

Biolinguistics. There are branches of psycholinguistics that have become more or less independent. One has been called developmental psycholinguistics (McNeill, 1966) and it deals with the principles of language acquisition in the child. Another one is biolinguistics which deals with the "biological foundations of language" (cf Lenneberg, 1967). These two branches are closely related, and developmental psycholinguistics is in a way a sub-part of biolinguistics, and I shall limit myself to this term. Both are so recent that their implications, at least for the teaching or foreign languages, are difficult to foresee. Biolinguistics, which Carroll (1953, p. 80) dates from 1950, has its best-known representative in Eric H. Lenneberg. He bases his assumptions for "specific biological propensities for our ability to acquire language" (cf what was said about Chomsky in this respect above) on the following five facts (Lenneberg 1964, p. 65-69): there are anatomic and physiological correlates, there is a developmental schedule, it is difficult to suppress language, language cannot be taught, and there exist language universals. These findings or facts refer mostly to first language acquisition but they are also of consequence for second language learning and teaching. In his later work (1967), Lenneberg re-formulates his five general premises and on them he builds a "biological theory of language development" (p. 371-379).
Other studies relating to this theory but sometimes with slightly different emphases are McNeill (1966) and Fodor (1966), referred to above, Brown-Bellugi (1964) and Ervin (1964). In the latter’s work maturation as opposed to imitation and reinforcement is particularly stressed.

**Bilingualism and Second Language Learning.** A problem which properly belongs to social psychology is that of bilingualism. Even a second language learnt at school creates a kind of bilingualism, and Fishman (1966, p. 121, and 124-126) points to some important implications of the study of bilingualism that may be relevant to the teaching of foreign languages at school. Malmberg (1964, p. 103 ff) deals with this problem briefly, and Hansegård (1968, esp. p. 65) has provided the fullest and latest treatment of the problem.

The above description of psycholinguistics has dealt primarily with research and theories of a scientific kind. Most of them treat the learning of the first language. Carroll (1953) gives some information concerning the teaching of foreign languages (p. 99, 168-195), and Bloomfield (1933, p. 503-505) talks about this problem too. Carroll (1953) also refers to a large number of books and studies concerning the teaching of foreign languages (p. 168, 243). Most of these are more expressions of philosophies and opinions, and they will therefore be dealt with briefly in a later chapter concerning language teaching experience and history.

**Linguistics.**

Linguistics, or the scientific study of language, has of course contributed in various ways to the teaching of foreign languages. This influence has perhaps been more in the form of a background concerning what to teach than in the form of methods and suggestions as to how to teach. "Linguistic analysis is not a method of instruction", it only "has something to say about what is to be taught" (Carroll, 1953, p. 190). "A central question in the application of linguistics to the teaching of foreign languages involves the conversion of a scientific grammar into a pedagogical grammar" (Saporta 1966, p. 81). During the Second World War and after, however, linguistics formed an unusually active part in a number of language teaching undertakings. These are well described in Carroll (1953, p. 173 ff, esp. 190-192).
The first people to use scientific theoretical considerations in the practical teaching of foreign languages at levels below that of the university were a number of European linguists at the turn of the century. This seems to me to be an important correction of Carroll's statement (1953, p. 172) that linguists "had had relatively little influence in the language-teaching movement"; this certainly is not true of Europe.

The four who are the best-known of these linguists were Vietor in Germany, Sweet in England, Jespersen in Denmark and Elfstrand in Sweden. They all made contributions in the form of theoretical discussions of the problems involved and also in the form of textbooks and grammars for school use. One of the things they took from linguistics was the new science of phonetics which led to an increased stress on pronunciation and oral practice. The most influential of these and the most "modern" of them is, undoubtedly, Jespersen, to whom I shall return in more detail later on.

The contribution of linguistics to modern foreign language teaching in the last thirty years or so, the period during which FL teaching changed from being a rather exclusive occupation for the children of the rich to something given to everybody (as in Sweden) or to increasing numbers of pupils (as in England and America), can be said to follow two separate lines. One, the older but still very influential line, is the structuralist view of language as a closed system in which "everything belongs together" (Saussure). This school stems from de Saussure and is represented by a large number of well-known linguists, among them the two best-known Americans, Sapir and Bloomfield. The consequences of this view can perhaps be described as giving impetus to the direct method contention that since languages make up separate systems in which everything belongs together, no comparisons with the mother tongue should be made in teaching a second language (cf Bloomfield, 1933, pp. 503-505). This applies to the teaching of vocabulary just as well as to the teaching of grammar. Part of this philosophy is also that language is primarily speech, and since we have learnt to speak and listen (both as individuals and as a culture, or ontogenetically and phylogenetically, as a biolinguist would put it) before we have learnt to read and write, so we should also teach the oral-aural or audio-lingual skills before we teach the other skills.
The other line, the younger one, can be said to date from 1957 when Chomsky published his famous Syntactic Structures. The number of books that have been written by him, his associates, pupils, critics and others in this vein after that date is by now overwhelming and nearly impossible to survey. There are many popularizations of Chomsky's theories. One fairly extensive but still easy to read is Thomas (1965). Much shorter introductions are Ljung (1966), Ellegård (1968, with his views on the implications for foreign language teaching outlined), and Sigurd (1967, p. 71-88). It is difficult if not impossible to sum up his views in a couple of lines, but perhaps the most important idea raised by Chomsky - as far as the teaching of foreign languages goes, that is - is not new or unique to him (he has himself shown how it goes back about three hundred years, Chomsky, 1966), is the idea of linguistic universals. This means that there are many basic deep structure traits that are common to all languages and that the closer related the languages under study the larger the number of similarities. These similarities may be hidden under the "surface structure" and that is why a thorough investigation or comparative study of the mother tongue and the language to be taught are essential. In the case of Swedish and English the grammatical structures are to a large extent identical or similar. (For a complete contrastive study of Swedish and English see Ellegård 1969.) The immediate consequence of this way of reasoning is that it must be meaningful not only to have theoretical linguistic descriptions of the two languages in the background when constructing the teaching materials to be used in class but also to bring them to the fore and point out the differences to the pupils. The effect of this and the best way of doing it have so far been very little investigated, but the present thesis is an attempt, however small and insignificant, at covering part of this field. Chomsky has himself stressed that his grammar is a theoretical model not a pedagogical grammar, but others (e.g. Thomas) have tried to apply transformational generative rules with proper modifications to the classroom situation. The present investigation is an attempt at this, too.
Related Research on Language Teaching Methods

Bibliography. Quite a lot of research has been carried out and is under way in the field of language teaching. Most of what I have been able to find has been done in the USA although there are projects in many countries. Anyone interested in this field can find much valuable information in "Research on Language Teaching. An Annotated International Bibliography, 1945-64", by Howard Lee Nostrand (1965), where hundreds of projects are listed. The English-Teaching Information Centre of the British Council and the Centre for Information on Language Teaching have compiled "A Language-Teaching Bibliography" (1968) and regularly publish Language-Teaching Abstracts. In addition to these publications there are valuable discussions of related research in many of the reports mentioned below, most noticeably Smith-Berger (1968) and Smith-Baranyi (1968).

The two most important and largest projects in recent years are those by Scherer and Wertheimer and by Smith and Berger.

Scherer and Wertheimer. One of the most extensively reported projects in psycholinguistic research comparing different methods of teaching a foreign language is the Colorado experiment of the early 1960's (Scherer and Wertheimer, 1964). An audiolingual and a traditional method of teaching college German were compared. The result of the two-year experiment seems to be that the two methods are "comparable (in) overall proficiency. But the audiolingual method, ........, appears to produce more desirable attitudes and better habituated direct association" (p. 245). In spite of the fact that a lot of people, money, and certainly hard work was involved and that an unusually thorough testing was done, a number of serious criticisms seem valid. First of all it is quite clear that the research team were not starting with an objective wish to find the best method but with the decided view that the audiolingual method was the better and that they wanted to prove this. See for instance p. 16. One reason why the audiolingual method has come out "loser" in other experiments has been the slower vocabulary growth. In the Colorado experiment this was counteracted by a design which meant that both groups were introduced to the same number of words. This again indicates the most serious shortcoming of the study under consideration: there was no detailed theory of the two methods as a starting point. The audiolingual method was simply
defined in terms of the material that was produced within the project; see p. 80. This is one of the factors that Carroll (1966, pp. 103-104) points out in his polite but not uncritical description of the project. Furthermore the teachers were not strictly instructed to follow a certain pattern but rather allowed to do as they wished, which, of course, creates a rather loose frame; p. 84. The very small number of students finishing two years of instruction (N=49) implies that very few definite conclusions can be drawn. Most of these factors are succinctly stated by Smith-Baranyi (1968, p. 10). When the fact that this study dealt with college students is added to the above list of reservations, it seems quite clear that very few meaningful conclusions concerning second (and third) language teaching in Sweden can be drawn from this study however interesting and instructive it may be from the design and testing point of view.

Smith and Berger. The background to the lively discussions in Sweden early this year (referred to below p. 27f) was the Pennsylvania project reported by Smith and Berger (1968) and Smith-Baranyi (1968). In this project 3500 pupils were used. 1090 remained after two years. Both German and French classes were included. Three methods were used: traditional, functional skills - grammar, and functional skills. These were carefully defined and described by a number of outstanding experts (Lado, Valdman and others). The objectives were far-reaching and comprehensive: the whole language teaching/learning situation was to be investigated and also the effects of language labs, the relationship method-intelligence, attitudes and so on. A large number of tests were given. In the reports there are interesting and valuable discussions of the method debate (Smith-Baranyi, 1968, p. 3 f) and of related research (Smith-Berger, 1968, pp. 6-10, and Smith-Baranyi, 1968, pp. 7-11).

The results after two years seem to indicate that there were no differences between the three methods except that in reading the traditional method was better than the functional-skills method (but not better than the functional-skills-grammar method). It was also found that pupil interest constantly diminished whatever the method, and also that the different textbooks used gave different results.

When in this project the pupils were divided into three intelligence groups - just as we are doing in the GUME project - it should be pointed
out that in Pennsylvania a little less that 20% take a foreign language. This means that their lowest group is the poorest third of the best 20%, i.e. they are all included in our top group since we use almost 100% of all 7th graders. These figures should therefore not be compared.

The somewhat surprising and perhaps even depressing results (even the authors themselves admit that they were both astonished and shocked by their own findings) show quite unequivocally what the situation is often like, but definitely not what it should be like. It is admitted and stressed that some of the audio-lingual material in particular used in the functional skills group was not good. Many new teachers came in during the project (p 27) and it was more common in the traditional group to find that the teachers were using a method that they liked and believed in (p. 32). The number of classes and pupils in each "cell" after the 1090 pupils had been split up according to language, method and language lab equipment is also rather small. The results, therefore, seem to me to say more about the material used perhaps (and thus probably something about what the situation is like in many of our schools) than about the methods as they were theoretically described. The differences in the number of chapters completed in the various groups is also surprising (Smith-Baranyi, 1968, p. 95).

The most direct results of these findings should be a reconsideration of our present methods rather than a complete re-evaluation of them. It is also obvious that further research is necessary. The authors are also very humble in discussing the implications and giving recommendations (Smith-Baranyi, 1968, pp. 112-115). The results can not be overlooked and refuted as has been done in the discussion but we need research in Sweden to complement these American findings since the situation is in many respects so very different here.

Swedish Projects. A number of projects concerning the teaching of modern foreign languages have been carried out in Sweden in the last few years. As I see it, none of them has more than an indirect bearing on the present project. I shall therefore limit myself to a brief survey of them.

In his thesis "Språkfärdighet och språkmetodik" Lars H. Ekstrand (1964) reports on three projects carried out under the auspices of the Board of Education. They are concerned with the teaching of English in the primary school, and his report has been complemented by Malmquist-Eklund (1967)
with their report on the experiments of beginning English in "lågstadiet". Ekstrand also has some interesting results about teachers’ attitudes to various methods.

The largest project in modern foreign languages is the UMT project in Malmö dealing with German in the 7th form, i.e., the first year of the second foreign language. A large number of reports have been issued, most of the earlier ones dealing with the role of the language laboratory. One of the most debated and criticized reports was Lindell’s (1966) on the teaching of "an old paradigm", i.e., the present tense of the verb sein. The results were clearly in favour of an analytic method. Löfgren (1966) came out in favour of bilingual word-lists, a result which is contrary to "official methods". This experiment has also been criticized. Both these projects were very small as far as the number of pupils and lessons and amount of material were concerned. Because of this and because it has seemed likely that fourth-year English and first-year German differ in many respects, I have preferred not to refer to these experiments in the present thesis and I have avoided drawing parallels even when it would have been possible. Another large project is our "mother project", the UME project. Most of its work has been devoted to exploratory work, trying to establish what the situation is like at the moment, what things people feel they would like to know, and, most importantly I think, how our syllabi can be made more concrete and explicit as to what we should teach. There has also been a start on creating teaching materials for the 7th form with the primary aim of trying to make individualized teaching possible. There are three reports which are of direct interest for the present study. "En undersökning av elevernas behärskning av grammatiska fardigheter i årskurs 7", part I (Tideholm, March 1967), and part II (October 1967) show that the pupils make comparatively little progress in the 7th form in their overall use of grammatical structures. The means on 56 items increase from 25.8 and 38.3 to 27.0 and 41.3 in ak and sk (cf the list of Abbreviations, p. III) respectively (Part II, p. 4). Their skill in using the do-construction in negative sentences did not increase at all in ak and very little in sk (p. 5). It is interesting to compare these figures - although they are very uncertain for a number of reasons - with the progress figures in the present study (cf p.75ff) which, however small, are significantly higher. The third report of interest, "Vilka är de angelägnaste "struktur"-övningarna för engelska i årskurs 7? "(February 1969),
shows that there is fairly general agreement that the structures used in
the project (the do-construction in questions and negative sentences, and
some-any; the passive was not on the list) are perhaps the most impor-
tant for this stage (p. 4).

The fourth Swedish undertaking in the field of modern foreign language
methodology is the MUP project which deals with the aims, teaching, and
testing of English in the university. This indicates that its findings can
only be of limited interest to the ordinary school teacher, but I think that
some of the testing techniques particularly can be adopted for lower stages.
Sigvard Gårdmark's (1968)'Vad är MUP?' is an introduction to the project
which has already produced five reports.

Casey. In an experiment in Helsinki, Finland, Daniel J. Casey (1968)
compared the effectiveness of two methods of teaching English as a foreign
language, using Carroll's (1966) definition as a starting-point. He esta-
blished "methods profiles" and then related these to pupil results. There
were non-significant advantages in oral skills for the "direct" pupils, and
low-significance superiority in written translation for the "traditional"
pupils. These results are thus fairly much in line with the American in-
vestigations quoted above in that they give no clear-cut results in any di-
rection.

Other Research. In the American scientific magazine Journal of Verbal
Learning and Verbal Behavior there are reports of various projects in the
field of language acquisition. I have gone through a number of the journals
of recent years and found nothing relevant to our project. Most projects
reported in this journal are of a theoretical kind, dealing with basic prob-
lems in the psychology of learning, and it is difficult to see how they can
be put to practical use in teaching a foreign language, especially on a
fairly advanced level like the fourth year.

Language Teaching History and Current Debate

Language Teaching History Outline. There are four factors that charac-
terize foreign language learning and teaching. For most pupils foreign
languages are difficult subjects. Most pupils learn more during a three-
month stay in the foreign country than during a three-year course at home.
The final test of how the teaching and learning have succeeded, unlike any other school subject, is not one given by the teacher but is rather the pupil's ability to establish contacts with people in the foreign country. These characteristics make up the paradox of the language teacher\(^1\), and this paradox has many consequences, the most important of which is, perhaps, what has been termed the swing of the pendulum in methods from the "schoolman's rules" to "immersion".

The immersion method can be said to have been used in Rome 2000 years ago when a Greek slave tutored Roman children in Greek. In the early Renaissance the pendulum had come full swing to the schoolman's rules in teaching Latin, when the pupil was made to talk mostly about the language (Mackey, 1965, p. 141). In the 16th and 17th centuries men like Montaigne and Locke brought a return to the "immersion" method. The 19th century saw the swing back again to what has also been called the grammar-translation method. At the turn of the century the final swing back to what has been typical of the present century can be said to have begun with men like Jespersen and Elfstrand.

Some Great Names. The historical development as sketched above has taken place at the instigation of a number of influential men, philosophers, linguists and pedagogues. Montaigne (1533-1592) was brought up by a private tutor who spoke Latin to him so much that at the age of six he is said to have known Latin better than French. He became one of the great spokesmen for what has been called the immersion method. (Cf Landquist, 1963, p. 60). The greatest name in the history of language teaching up to the present century is probably Amos Comenius (1592-1670), a Czech who spent part of his life in Sweden. He wrote a lot of very influential books on language teaching, among them the "Orbis Pictus", 1658, (The World in Pictures), the world's first audio-visual textbook. (Landquist, 1963, pp. 79-87). J.B. Basedow (1724-1790), a German, built on Comenius' principles and stressed the importance of conversation exercises. (Landquist, p. 119). A not very well known man, I think, is the Frenchman F. Gouin (1831-1900), who spent a great deal of time studying how small

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\(^1\) This term and the discussion here is built on ideas expressed by Professor E.W. Hawkins, York, in personal communication and lecture on June 13, 1967.
children learn languages. He is a fore-runner of modern American developmental psycholinguistics (cf p. 15 above). Among the men who, at the end of the last century, tried to reform the teaching of foreign languages the most important was no doubt the Danish professor Otto Jespersen, whose book "How to Teach a Foreign Language" (1904) is now a classic. H. E. Palmer came in on the crest of the wave of the direct method and brought it back into proportion. His best-known work is "The Scientific Study and Teaching of Languages" (1917), also a classic.

Language Teaching in Sweden. The first experiments in teaching modern foreign languages in Sweden were made in a private school in Stockholm for a number of years in the 1770's. (Landquist, 1963, p. 232). It was with the Education Act ("skolordningen") of 1807 that modern foreign languages were first introduced in the upper forms of the grammar school. From this time onwards and through a number of new Acts during the 19th century the teaching of foreign languages became better established: more languages were introduced, more pupils could take them, and take them earlier. (Cf Thorén, 1954, and Landquist, 1963). From the method point of view, however, the introduction in 1862 of the "matriculation" examination ("studentexamen") was disastrous as it was decided that the examination paper should be a translation test with the help of a dictionary. This meant that the method of teaching, which had been the direct or immersion kind mostly, had to be changed. The swing back has not taken place until the last 10 or 20 years. The following Educational Acts are of the utmost importance and show how rapid progress is at present: 1946, English is introduced as the first foreign language in all kinds of schools and becomes compulsory for all children, 1950, all children from the age of 11 to take English, 1962, all children from the age of 10 have to take English, 1970, children of 9 start English.

The Situation To-day. In most civilized countries one or more foreign languages are an important part of the school curriculum. (Cf Sjöstedt-Sjöstrand, 1952). The number of years during which they are compulsory varies quite a lot, but they are offered in most schools starting in a fairly low class. The methods used vary but a direct method of some kind is probably the most common at present. In France the direct method was enforced by law so strictly that a teacher who did not adhere to it could
be dismissed. In England there are experiments with foreign languages in the primary school, in France with German and English even in the nursery school, in the USA it is becoming increasingly common to take at least one foreign language in high school, and in Norway English is being introduced at lower levels.

As far as I know, however, there is in no country a larger number of compulsory years, an earlier start on a foreign language course, and a larger proportion of pupils taking foreign languages, than in Sweden. In Sweden all school children, including under-achievers in special low-IQ classes, have to take English for six years (this will be seven from 1970), and almost all the pupils take a second language such as German or French for three years. The methods to be used are laid down in Läroplan för grundskolan (1962) and they can be said to be what has been termed a modified direct method ("den förmendande metoden", Kärre, 1949, p. 2).

**Language Teacher Experience.** It is probably true to say that the curricula in foreign languages are more the result of teachers’ impressions, opinions, and experience, than on scientific findings. This is true of aims and, to an even larger extent, methods. And teachers criticizing curricula or curriculum changes often refer to their own experience. A large number of language teachers have written books, some of which have become classics in the field, of this unscientific kind (the word "unscientific" is here meant to express an objective characteristic, not a subjective-negative opinion). The oldest but probably still the best of these is Jespersen’s "How to Teach a Foreign Language" (1904), in which he discusses conversation and translation, for example, and all the points argued at present, and he does it in a way which is completely in line with the present Swedish curriculum. He speaks in favour of exercises so simple that the pupils are almost forced to answer correctly (cf modern programmed instruction), because they "confirm good habits of language" (p. 122). And he is a forerunner of Chomsky and modern developmental psycholinguistics, or biolinguistics (cf p. 15 above) when he speaks about the fact that a pupil can be made to create forms that he has not previously heard and that "this is what takes place every minute wherever human languages are spoken" (p. 116).

A more modern book which has been quoted quite often in Sweden is F. L. Billows’s "The Techniques of Language Teaching" (1961). Billows
is a proponent of an almost pure direct method and his views are rather extreme. For example, it is his firm opinion that translations in a word-list should not be used since they make it more difficult for the pupil to learn the words (p. 28). The American counterpart, one could say, is Nelson Brooks' "Language and Language Learning" (1960) which is considered the most authoritative description of the audio-lingual method. Both these books should be read as essays on how languages can be taught, not on how they should be taught. A fairly recent statement of the situation today is David H. Harding's "The New Pattern of Language Teaching" (1967). There is an outline of some practical applications of the ideas behind the present Swedish curricula in Per-Olof Hensjö's "Build up The 'English" (1966, esp. pp. 155-157). Hensjö is one of the authors of the current Läroplan för grundskolan.

Current Debate. I doubt if there is any subject in which the debate has been livelier and differences of opinion greater than in modern languages. It would take far too long to give anything like a full account of all that has been said and written. I shall limit myself to a few remarks on some of the more important public discussions; the reader is also referred to the bibliography for a list of the more important articles.

One of the most influential debates was started by Svante Hjelmström in "Pedagogisk Debatt" in 1959 with the article "Ut med översättningen!" which was answered by Erland Kruckenbergh in his article "Ut med översättningen?". In my opinion this debate was both an expression of new trends and the beginning of a fresh approach to language teaching methodology. Many of the ideas expressed here are behind the present curricula.

Professor Ellegård, a linguist who has taken a great interest in language teaching and learning problems, has opened no less than three important debates in leading newspapers. He has been influenced by American linguistic and psycholinguistic findings. The first of these, in 1966, dealt with problems in developmental psycholinguistics. The other two are relevant to the present thesis. In 1967 Ellegård asked whether the teaching of languages in our schools is old-fashioned (Skolans språkundervisning foråldrad? DN 30/3 1967). His opinions were based on theoretical assumptions drawn from modern transformational generative linguistics. When he took up the subject again in 1969 (Tänk om i språkundervisningen! DN 3/1 1969), advocating a modified grammar-translation method largely based
on the cognitive code-learning theory ("insiktsmetoden"), he felt that his theories had been verified in a number of experiments in Sweden and America most noticeably the Smith-Berger project in Pennsylvania. Both in 1967 and in 1969 there appeared a large number of articles, many written by representatives of the Board of Education. They defended official methods and criticized Ellegård. (The UMT project in Malmö was also severely criticized, Professor Bjernstedt came out in its defence in "Kons- ten att vänta på fakta", 1968). Some of the teachers who came out in de- fence of Ellegård had obviously misunderstood him. They represent the "stand-pat traditionalists" (Carroll, 1966, p. 95) who will use any occa- sion to vent their ideas. Some of these were published in Svenska Dag- bladet and typical of them is an article by Nils Fischerström entitled "Mål och metod i språkundervisning" (SvD 2/2 1969). A similar misuder- standing concerning the differences between a new, linguistically-based method and the old grammar-translation method occurred when professor Owen Thomas, Indiana University, visited Sweden in 1967. He was said to have proposed a reintroduction of grammar and a total abolishment of the direct method (Göteborgs-Posten 19/4, 1967, Göteborgs Handels- och Sjöfartstidning 20/4, 1967), whereas what he had proposed was a direct method complemented by grammar in some form or another (personal communication by professor Thomas to the author).

As will be evident from the above brief notes on the debate there is a widespread interest in these questions, and the present thesis is an attempt to present some facts that may illuminate the problems.

The Future. After these rather long descriptive of language teaching history and debate the obvious question is: What is the next step? First, it is clear that scientific research, mainly in linguistics and psycholinguistics, will be a strong influence. This will also be true of technology in the form of various mechanical aids such as the language laboratory and possibly TV. The present trend towards a greater stress on skills, as opposed to knowledge, and particularly skills in speaking and hearing will, in all likelihood, continue. Foreign languages will also be introduced in lower classes and methods will have to be modified accordingly. Another trend that may develop further is the practice of letting pupils stay in a foreign country for a certain time. But what is needed most of all is a strengthening of the "computer" in the Method Decision Procedure
Methods in Teaching Modern Foreign Languages

In the previous discussions reference has been made several times to different methods. How many methods are there and what are their characteristics? Many attempts to answer these questions have been made. Mackey (1965, pp. 151-155) lists no less than fifteen different methods.

Iodice (1961, p. 16 ff) suggests five: classical (grammar-translation), direct, army, AV, and audio-lingual. The army method has been very extensively described by Carroll (1953, pp. 173-177), and, as he points out, this was the first systematic attempt at using linguistics in the creation of a new method in language teaching. These experiments are of limited value mainly because only highly gifted adults were concerned. The audio-visual method seems to have its greatest advocates in France (St Cloud), and in Professor S. Pit Corder in Scotland whose "The Visual Element in Language Teaching" (1966) is a statement of some basic ideas. The audio-lingual method, which can be said to be the American counterpart of the direct method, has been the leading method in the USA for the last 20 years, and "Language and Language Learning" (1960) by Nelson Brooks is probably the best description of its principles and is often quoted for this reason. On pages 142-143 he sets down some of the basic principles in teaching by this method. Another widely read book which has this method as its underlying principle is Robert Lado's "Language Teaching" (1964). Carroll (1966, p. 101) in his article "Psychology, Research, and Language Teaching" points to the unfortunate lack of a formulated theory behind current methods. He feels however that the theories implicit in the writings of the leading methodologists can be grouped under two main headings, which he names the audiolingual habit theory and the cognitive code-learning theory. These would then be the theories behind the audiolingual and grammar-translation methods respectively. He also stresses his own view that neither of these theories have taken adequate account of recent development in the study of verbal learning. He suggests a revised theory which might lead to a kind of revised traditional method (cf Smith-Baranyi, 1968, p. 21). This new method would probably be quite similar to Ellegård's suggestions ("insiktsmetoden", (p. 6 above), so that subjective feelings can be given less weight. This would lead to more effective teaching.
The critical examination of the audio-lingual method by Wilga M. Rivers in her book "The Psychologist and the Foreign-Language Teacher" (1964) is an extremely perceptive warning against one-sidedness, and she shows, point by point, how the assumptions of the audio-lingual method lack theoretical confirmation. Her recommendations (pp. 149-163) stress the importance of using the psychological insight "that language communication involves a relationship between individuals and not merely the memorization and repetition of phrases and the practising of structures" (p. 163).

The situation might thus be summed up: there are two main methods, each made up of small sections such as vocabulary learning, learning of grammar etc, and with a fairly wide range of shades and variations. Most teachers stand somewhere in between and use whatever part they find most suitable from each method. (Cf Carroll, 1966, p. 102). This dichotomy of methods now seems to be threatened by new influences coming from various sources, in particular, linguistics and psychology, which may ultimately lead to the setting up of a new third "middle-of-the-road" alternative which may perhaps be called the linguistic method or the scientific method.
3. THE METHOD

Project Design (Common GUME Procedure)

Methods. The GUME project was never meant to be a full-scale experiment working with the complete range of language acquisition but it was to have a limited objective, that of trying to establish how various grammatical patterns are learnt and should best be taught. As has been mentioned before we worked with three different methods which were characterized somewhat like this (for a more complete description of lessons and explanations, see p. 48ff):

The implicit method, based on the habit formation theory of learning, is a completely "pure" audiolingual or direct method, strictly systematized but with no explicit explanations of either what the drills are about or how the problems should be solved. It was felt that this method could well be fitted into the official Swedish curriculum (Läroplan för grundskolan) - although this is irrelevant - and also that this, rightly or wrongly, is how a large number of teachers understand the Swedish Board of Education's instructions.

The explicit method, based on the cognitive code-learning theory of learning, should also be formed with strict pattern or structure drills as its backbone, but in addition to these drills explicit grammatical explanations should be given. It is worth pointing out that no grammar rules in the old sense were given, no rules for the pupils to learn, but there were just explanations of and comments on what the pupils were doing in the drills, and these were intended to elicit the correct responses more easily. Saporta (1966 b, p. 84) gives a brief description of the opposing views of how grammatical structures should be learnt and also points out the need to verify opinions by means of experiments.

Since one of the contentions of present-day linguistics is that the mother tongue or first language will always be a kind of pattern in the background to which the pupil will want to make the foreign or second language conform (cf Ellegård 1968, p. 19 f) which means that effective language teaching should point out the differences, it was felt that the explicit method should
be applied in two ways, one in which the explanations would be given in English and all references made to English only, and one in which the explanations would be given in Swedish and in which comparisons with Swedish would be made. This, of course, means that four explicit groups could have been formed, since the two methods chosen differ in two ways, but this was thought to be an unnecessary complication.

This then leaves us with the pattern used in the three projects: three methods called Implicit, Explicit-English and Explicit-Swedish, abbreviated throughout as Im, Ee, and Es. Notice that Im does not stand for imitative, although imitative elements are prominent in the implicit method.

**Classes.** In selecting classes to participate in the project there were two considerations: the necessity of having enough representative classes to allow for generalizations of the results, and the necessity of keeping the project a manageable size. Three assistants and three sets of earphones (see below) were considered the maximum. Since each lesson on account of the many schools' time-tables and extensive travelling would take at least two hours, it was felt that each assistant could manage a maximum of six classes, which meant 18 hours a week if we used three lessons a week out of the four that grade 7 has. This then meant using 18 classes per sub-project, 6 per method and a total of 54 for the three projects together. As Swedish children in the 7th form have two alternative courses or streams to choose between and since experience shows that about two thirds take the larger course ("särskild kurs", here called sk), and one third the easier basic course ("allmän kurs", called ak), it was decided that within each project and each method 4 sk and 2 ak groups should be used. The arrangement is as follows, then:

<table>
<thead>
<tr>
<th></th>
<th>Im</th>
<th>Ee</th>
<th>Es</th>
</tr>
</thead>
<tbody>
<tr>
<td>sk</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ak</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

= 6 = 6 = 6 = 18 x 3 projects = 54

It should also be noted in this context that "class" in this case does not mean form or group of children that regularly work together but rather a teaching group, coming together for English only, and quite often, especially
in the case of ak, coming from many different classes. In order to get as varied a social background as possible all headmasters in Gothenburg, surrounding towns and school districts within some 30 miles of the city were contacted in April 1968. The idea was to ascertain the number of classes and teachers and to get a rough idea of headmasters' and teachers' interest and willingness to participate. The Board of Education in Gothenburg was also contacted and permission to carry out the experiments as outlined was granted. Since all the headmasters showed a positive interest a first division of the city was made, so that project I was to use schools mainly in western and central Gothenburg, project II schools in central and northern parts of the city, and project III schools in southern Gothenburg, in Mölndal, south of the city, and partly on Hisingen.

During the first week of the autumn term a letter was sent to all the teachers who taught sk or ak in the 7th grade. They were briefly informed of the aims of the project and of its scope. They were also asked to inform the project staff of their willingness to participate. A majority were willing to take part. Time-tables for all the classes were obtained and the most difficult task of putting together three schedules for the assistants was successfully solved. One trouble is that in many schools all groups have English at exactly the same time which means that as a rule only one class from each school could be used. In a few schools two classes could be used and in one three classes could be fitted in. When more than one class from a school took part, it was decided that they should be taught according to different methods. In deciding which teachers to pick out, the suitability of the time-table and the problem of finding the right number of sk - ak classes were the most important factors.

After the teachers had been selected they were given numbers. They were then assigned to teaching strategy ("treatment") by drawing lots. In two cases only this complete randomization had to be deviated from in order to fulfil the decision to teach classes in the same school by different methods. For each method there were 4 sk and 2 ak classes. The total number of pupils per method in project I can be seen in table 1 p. 4.

Overall Time-table. The project was split up into three part projects, each dealing with a different grammatical structure. This seemed valid since there were two main contentions to test, one that different pupils might benefit by different methods, (and this needed to be tested in a number of parallel pro-
jects), and the other that different grammatical items might best be treated in different ways. The three part projects were then assigned to the following patterns: the do-construction in questions and negative sentences, the some-any dichotomy, and the passive construction. Of these, the do-construction should be fairly well known to the pupils from their second and third years of English, but experience shows that university students do not use the construction correctly, at least not in speech; some-any would be known as words but the difference hardly systematically taught. The passive would probably be a completely new phenomenon for 7th grade pupils.

The first part project got under way early in October, 1968, the third project was finished in late March, 1969. A survey of the three projects is found in fig. 2 on page 35.

In the 7th form the pupils have four hours of English each week. Two of these are very often put together immediately after each other. Since it was felt that the pupils should not have more than one lesson in the project per day, there were in most cases three hours per week that could be used. The plan for a part project in a class including six lessons, pre-, post-, and re-tests, intelligence tests and a training period to teach the pupils how to use the technical equipment would thus cover about four weeks; see fig. 3 on page 36. This theoretical plan was often changed because of interfering activities in the classes.

Lessons. Each part project consisted of six lessons of thirty minutes. Each lesson consisted of three parts: oral grammar drill, written practice of the same structure, and a reading passage containing a fairly large number of examples of the same grammatical structure. Each of these three activities took about ten minutes of the lesson. Sometimes they were mixed but the same balance was kept. Cf table 3, p.47 for a detailed description of the six lessons of part project I.

In the explicit lessons three minutes were taken from each of the three activities and replaced by explanations. Three explanations were given in each lesson. The explanations thus added up to nine minutes per lesson which is much more than any advocate of a grammar method would ever suggest. The perhaps somewhat surprisingly long explanations were after careful consideration and long discussions between the members of the
Fig. 2: Time-table for the Three Part Projects of the GUME Project 1968/69

1968

October

Project I
The Do Construction

1969

November

December

January

February

March

1969

Project I
Re-Test

Project II

Re-Test

Project III
The Passive Constr.

Re-Test
Fig. 3: Theoretical Plan for Each of the Three Part-Projects

1st week

Pre-Test
Pre-teach Period 1) X Lesson 1

2nd week

Lesson 2 Lesson 3 IQ Test Lesson 4

3rd week

Lesson 5 Lesson 6 IQ Test Post-Test

4th week

Attitude Test

---

9th week

Re-Test

1) Pre-teaching period ("Inskolning") = A short lesson aimed at teaching the pupils how to handle the earphones and how to do the oral 4-phase drills, and also intended as a test of the equipment.

X = Lesson during which the ordinary teacher taught the class and was allowed to do whatever he liked as long as he did not touch on the problems dealt with in the project.

Notes: Two lessons were never given on the same day to the same pupils. The IQ tests were quite often given on two separate occasions.

Because of holidays the project, in most classes, took a little more than four weeks to finish.
project and also outside experts. It was felt that if any clear-cut results were to be had, the differences between the groups had to be large enough. The plans for the coming year are to adapt these methods in the direction of more widely accepted and practised methods. The validity of research working with exaggerated methods seems to be viewed very differently by psychologists and professional researchers (see, for example, Carroll, 1966, p. 100), and language teachers.

As will be seen from table 3 the explanations came in at various places in the drills but not at the beginning nor at the end. As has been pointed out many times (e.g. Smith-Berger 1968) it must be a task of primary importance for future research to find out where explanations should best come in.

Technical Arrangements. Educational research is a difficult task to undertake, much more difficult than physical or chemical experimentation. The reason is the human factor as represented by teachers and by pupils. There are two ways of overcoming the teacher problem; one is to have so many teachers for each method to be tested that the "teacher factor" is balanced, the other is to do away with the teacher. The former solution has the advantage of being more realistic but the drawback of being more expensive for a number of reasons. This was the way chosen by Smith and Berger, who also worked very hard with teacher instruction in the form of seminars, printed guidelines and visiting "field consultants". They seem to have succeeded fairly well but at a high cost. Scherer and Wertheimer meant to follow the same pattern but failed in both respects: the number of teachers was quite small and in the audiolingual group one of the four teachers taught three classes (1964, p. 22), the teachers were also given considerable freedom to do what they wanted, and admittedly the teaching varied a lot (p. 84). In the GUME group we decided to choose the alternative, that is to do without the teachers altogether. We did this by pre-recording the lessons on magnetic tape, and these "canned" lessons were then presented by three assistants. The ordinary class teachers were instructed to be present as usual, and to help the assistants with various practical tasks but not to take any active part in the lesson. They were also asked to observe the class and to note reactions but not to show their own reactions in front of the pupils nor to discuss the project with the classes until after the end of it.
Since each lesson was to contain oral drills, it was considered necessary to use some kind of language lab equipment to facilitate this. It was also felt that pupils would be more willing to respond if they could not hear each other as they would if only a tape-recorder was used. The easiest and cheapest kind of equipment that could be used was magnetic wiring kind of transportable lab which works in the following way. In the classroom a telephone wire is installed by simply tacking it to the skirting-board. The two ends meet in a wall socket. The tape-recorder is attached to the wire with a short cable. When the tape-recorder is started with the loudspeaker switch in the "external" position, nothing will be heard in the room, but a magnetic field is created. The pupils can now use headsets (earphones with activated microphones attached to them) with induction receivers, the size of match-boxes, on them. They can then hear the programme and their own voices but not each other. The teacher will have to speak to them either "through the air" or with the help of a microphone attached to the tape-recorder which will then work as an amplifier.

This was the method decided on. About 120 earphones were therefore bought and borrowed. Each of the three assistants had about 40 earphones in a large suitcase and took them with him to the various classes. The wiring was permanently installed, however. The assistants also took along a tape-recorder and in the do-project a slide-projector (its use will be explained in due course). At the beginning of each lesson they also distributed a number of papers containing the lesson work for the various groups. These technical arrangements - earphones, tape-recorders, magnetic wiring, projectors, stencils by the hundreds - were rather cumbersome and will not be included in their entirety in the future.

The very natural argument that all these mechanical gadgets will do away with the most important factor in education, the living teacher and the pupil-teacher interaction, is of course completely valid, but since it was the same for all groups and for all three methods under evaluation, it was felt that it was defensible as a necessity. It should be borne in mind that only six hours were concerned.

Since the equipment and also some of the techniques used are of a kind that sometimes go by the name of language laboratory, it should be pointed out that this, in my opinion, should not be mistaken for language lab work. It is considered by lab experts, at least in Sweden, that the lab should not
be used, especially with 13-year-olds, for more than about 20 or 25 minutes at a time. Nor should more than about a third of the total time be used for lab practice. The arrangement used in the project was not a copy of language lab methodology but an experimental necessity to keep the teacher variable constant. None of the results should be used in criticism or defence of language labs, nor should any criticisms of the arrangements used here be considered as indirectly aimed at language labs in general. These things are stressed because the inferences mentioned here have been made.

Project I Design and Conduct

The Problem. The first project, concerning the do-construction, was carried out in October and November, 1968. In the early discussions in February, 1967, various possible grammatical structures were mentioned. Of these I decided to work with the do-construction for a number of reasons. One of the most obvious was, of course, the fact that it is a fairly big problem both as far as "size" and as far as difficulty are concerned. It comprises not only questions but also negative statements and negative questions, and also emphatical sentences although these were later dropped. Connected with the problem is also the matter of verb forms in answers where the 3rd person present tense -s and the preterite -ed or irregular form should be used. These are things which are already taught as a rule in the 5th form, but experience has shown that even very advanced Swedish students have difficulty in using these constructions correctly. The second reason for choosing the do-construction was the fact that I wanted to try to make pedagogical use of transformational-generative grammar, something which has been tried before in America but, to my knowledge, not in Sweden. A school grammar in German by Bertil Ekholm-Erb has appeared quite recently, however, which is based on what may be called a transformational approach. It is important to remember, in analysing the results, that the explanations given were of an unusual kind, and it is very likely that the results would have been different if another kind of explanation had been offered. In criticizing the explanations the reader is reminded that they do not represent the author's opinions of how explanations should be formulated but rather an attempt to introduce something new. If they failed, however, it does not necessarily mean that this kind of grammatical approach could not be used if more time could be spent on it and if an introduction of
the basic concepts had been given in teaching Swedish grammar.

The problem of the do-construction, or the "do-omskrivningen" as it is usually referred to in Swedish, has always been considered one of the main stumbling blocks for Swedish pupils. It has been said (by Michael West who had taught English in a dozen nations; personal communication from Dr. Johannes Hedberg) that Swedes are the only people who think this construction difficult, and it has been suggested that the reason is that we teach it the wrong way. However this may be, the differences here between Swedish and English are great, and the problem is certainly one of the major points in elementary courses in English. The differences between Swedish and English have been succinctly described by Ellegård (1969, pp. 54-56) and may perhaps be summed up as the difference in the treatment of the finite morpheme which in questions in English moves to a position at the head of the sentence together with the auxiliary, if there is one, or alone. This then means that a new verb - do - must be introduced for the finite morpheme to hang on to. In Swedish however, the finite morpheme brings the verb with it whether it is an auxiliary or a main verb. In negative sentences the "not" in English never moves out of the auxiliary as it does in Swedish. This also means that if there is no auxiliary, a 'do' must be introduced.

In the slightly modified kind of explanation used in the project (further comments on this are given below, p. 51f). I started out with the finite morpheme in its "proper" place, i.e. attached to the main verb (e.g. He looks, He looked), and not within the auxiliary as Chomsky does. This in a way means even greater regularity in questions and negative sentences. The rule can then be reduced to a movement of the finite morpheme, in questions to the beginning of the sentence, in negative sentences to a position before "not".

The Pupil Population. Eighteen classes from ten different schools with 16 different teachers took part in project I. The principles followed in selecting these classes have been described above, p. 32f.

The total number of pupils whose results have been processed by the computer was 356; table 1. This figure varies in different tables in this report because certain pupils were absent from some tests. Of these 356 pupils 248 took sk, and 108 ak. There were 183 boys and 173 girls. There
were somewhat fewer pupils in the Im groups than in the Ec and Es groups. This is particularly true of ak where by chance both classes happened to be very small.

The survey made at the beginning of the project of all the schools in the Gothenburg area showed that in the 32 headmaster districts in Gothenburg and Molndal which have the 7th form there are 5412 pupils, 1748 of whom take ak, i.e., just under one third. The division made in

Table 1: Number of Pupils in the Project Whose Results Have Been Processed by Computer.

<table>
<thead>
<tr>
<th></th>
<th>Im</th>
<th>Ec</th>
<th>Es</th>
<th>boys</th>
<th>girls</th>
<th>totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>boys</td>
<td>38</td>
<td>41</td>
<td>37</td>
<td>116</td>
<td></td>
<td></td>
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<tr>
<td>girls</td>
<td>41</td>
<td>46</td>
<td>45</td>
<td>132</td>
<td></td>
<td></td>
</tr>
<tr>
<td>total</td>
<td>79</td>
<td>87</td>
<td>82</td>
<td>248</td>
<td></td>
<td></td>
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<table>
<thead>
<tr>
<th></th>
<th>boys</th>
<th>ak</th>
<th>girls</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>boys</td>
<td>13</td>
<td>11</td>
<td>24</td>
<td>67</td>
</tr>
<tr>
<td>girls</td>
<td>30</td>
<td>12</td>
<td>14</td>
<td>41</td>
</tr>
<tr>
<td>total</td>
<td>24</td>
<td>42</td>
<td>42</td>
<td>108</td>
</tr>
</tbody>
</table>

| Total | 133  | 173 | 356   |

the project with 2 ak and 4 sk classes per method is thus correct, but as it turned out we had rather too few ak pupils.
Social Background

The social background of the pupils was also checked by collecting information as to the occupation of their parents. For 34 out of 356 pupils this could not be obtained. The results were as recorded in table 2 below.

Table 2: Number of Pupils from Different Social Groups.

<table>
<thead>
<tr>
<th>Social group:</th>
<th>(not) (obtained)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>totals</th>
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</thead>
<tbody>
<tr>
<td>boys sk</td>
<td></td>
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<td></td>
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<td></td>
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<td>14</td>
<td>41</td>
<td>35</td>
<td>26</td>
<td>116</td>
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<tr>
<td>total</td>
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<td>88</td>
<td>78</td>
<td>57</td>
<td>248</td>
</tr>
<tr>
<td>per cent</td>
<td>10,1%</td>
<td>35,5%</td>
<td>31,5%</td>
<td>23,0%</td>
<td></td>
</tr>
<tr>
<td>boys ak</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>girls</td>
<td>11</td>
<td>47</td>
<td>43</td>
<td>31</td>
<td>132</td>
</tr>
<tr>
<td>total</td>
<td>25</td>
<td>88</td>
<td>78</td>
<td>57</td>
<td>248</td>
</tr>
<tr>
<td>per cent</td>
<td>10,1%</td>
<td>35,5%</td>
<td>31,5%</td>
<td>23,0%</td>
<td></td>
</tr>
<tr>
<td>totals</td>
<td>34</td>
<td>90</td>
<td>110</td>
<td>122</td>
<td>356</td>
</tr>
<tr>
<td>per cent</td>
<td>9,5%</td>
<td>25,3%</td>
<td>31,9%</td>
<td>34,3%</td>
<td>100%</td>
</tr>
</tbody>
</table>

per cent after unidentified pupils are discounted:

|               | 27,0% | 34,3% | 37,9% | 100% |
According to official statistics for Gothenburg (Andrakammarsvalet i Göteborg 1968, U 1969:2 pp. 63-69) the overall figures for social groups in Gothenburg are (group 1 corresponds roughly to English "upper class", and group 3 to "working class"; the much-disputed division is based on income mainly):

<table>
<thead>
<tr>
<th>Social group:</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per cent of the population</td>
<td>8.2</td>
<td>38.4</td>
<td>53.4</td>
</tr>
</tbody>
</table>

These figures vary considerably between the different parts of the city. The highest and lowest figures for group 1 among the 11 areas of the city given in the report are 16 and 4 respectively.

As can be seen in table 2 above there is a considerable difference between sk and ak in this respect. We also notice that there are more group 1 pupils in the experiment than in the population as a whole. The difference is so great and obvious that a chi-square testing need not even be done. This is due to the fact that three classes came from Samskolan, a private school in which all the pupils take sk and in which pupils from social group 1 dominate. This does not influence the results as a whole, however; this has been checked in various ways. The fact that the pupil population is not representative from the social group point of view can thus be disregarded.

The overall mean for social group in the project is 2.10. In sk and ak the figures are 1.88 and 2.64 respectively.

**Intelligence Tests.** The pupils were also intelligence tested. The means for the various groups will be given later in their proper place (cf p. 66). One aspect of the intelligence results will be discussed here: the relationship between IQ scores and sk-ak membership. The pupils are free to choose whether they want to follow the more difficult sk or take the smaller and easier ak. Experience shows that about one third take the easier course (cf p. 41 above), but our survey shows that the figures vary between 50% ak and just above 15% ak (in Samskolan it is 0% ak as has been mentioned above). It is hoped that information and guidance will make the pupils choose the "right" course. Our figures seem to indicate something else, however. Figures 4 and 5 show the IQ distribution in sk and ak, one in percentages and one in absolute figures. The figures reveal the very
Fig. 4. Distribution of Pupils in ak and sk according to IQ in Per Cent per Course.

Fig. 5. Distribution of Pupils in ak and sk according to IQ in Number of Pupils.
large overlap between the two courses.

The IQ scores vary between 26 and 74. One third (or more exactly 112 pupils) have 47 points or below and 244 have 48 or more. If IQ scores were followed in dividing the pupils into sk and ak, about 20% would have to change courses compared with the numbers given here. The sk median goes between 52 and 53 points, and just over 8% of the ak pupils are above that; cf Anastasi, 1958, p. 454, for a discussion of this way of describing overlapping distributions. It is worth noticing that with the exception of the two best ak pupils (one with 68 and one with 59 points), the best ak pupils have 57 points (N=3). The lowest figures in sk are 28, 32, 34, 37 (N=2), and 39 (N=4).

These figures seem to indicate that the division of the pupils into two separate courses is rather unnatural and that other factors than ability seem to be decisive. The differences between sk and ak classes may therefore be taken as a sociological phenomenon rather than an intellectual one.

Time-table. The first part project started in the various classes on October 14 and continued until November 7, i.e. weeks 42 - 45. It was preceded by a conference with the participating teachers on October 2, and a new conference when various experiences were discussed was held on November 14, 1968. The intelligence tests were given in weeks 43 and 44 on the "in-between" hours which means that in most cases the teachers had no teaching periods of their own during the project. The re-test was given in the first week of December, i.e. about one month after the end of the project. The teachers had been asked and also agreed not to teach the do-construction during the intervening period.

How the theoretical time-plan (cf p. 34 above) worked out in reality in all its details in this project can be seen from the description in table 3 on p. 47 below.

The Lessons. Certain basic principles had been agreed upon fairly early in the project and they, of course, decided the lesson material to be described.

It was considered that for a number of reasons a series of six lessons would be suitable in an explorative study of this kind. This would be
sufficient to ensure, at least theoretically, measurable differences between the different groups, but would not be unwieldy. It would also be a small enough unit not to scare the teachers away or to tire the pupils. For practical reasons it was decided that each lesson should be 30 minutes in length and that the whole lesson should be recorded on tape (cf p. 37)

The lessons were to be in three parts: an oral with structure drills, a written for written exercises, and a part for reading and listening practice, each to take roughly 10 minutes. The Im lessons were the starting point: the exercises were composed according to Im principles, i.e. there were no explanations at all. The explanations in the E groups were to be roughly 9 minutes per lesson, or 30%, divided into three 3-minute sections, one in each of the three parts of the lessons. These explanations were to be inserted at a suitable place in the exercise and a corresponding part of the exercise was to be excluded. A graph can be seen in figures 6. The explanations will be discussed later (page 51). The actual times for lessons, parts of lessons and explanations in project I can be seen from table 3.

Since we were interested in investigating the teaching of grammatical structures, not in the teaching of English in general, it was decided that the lessons should be crammed with exercises of the construction under investigation, in this case the do-construction, and that we should not try to teach or to test any gains or losses in the overall knowledge of English.

As has been pointed out earlier it was part of this project to see whether it would be at all feasible to try to use transformational rules in teaching the do-construction, I decided to start the series with the third person singular, go on to the past tense and as lesson four take up the other persons with "do". (The first lesson only dealt with how to answer questions.)

All the material that the pupils would need was printed in stenciled booklets, one for each lesson. These booklets were collected after each lesson. The teachers were allowed to keep them if they wanted to, but most of them were just thrown away, without the pupils knowing this, however. Some were kept and gone through to see what the pupils had produced.
<table>
<thead>
<tr>
<th></th>
<th>Introduction</th>
<th>Oral drills</th>
<th>Written drills</th>
<th>Reading drills</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Im</td>
<td>2.53</td>
<td>10.51</td>
<td>8.14</td>
<td>7.06</td>
</tr>
<tr>
<td></td>
<td>Ee</td>
<td>3.01</td>
<td>9.17</td>
<td>8.16</td>
<td>8.31</td>
</tr>
<tr>
<td></td>
<td>Es</td>
<td>2.57</td>
<td>9.06</td>
<td>8.21</td>
<td>7.40</td>
</tr>
<tr>
<td>2</td>
<td>Im</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ee</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Es</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Im</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ee</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Es</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Im</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ee</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Es</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Im</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ee</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Es</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Im</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ee</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Es</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4. Time-table for the Explanations.

In the figures in table 3 for Ee and Es the explanations are included. Out of the figures given the explanations took:

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ee</td>
<td>3.42</td>
<td>3.00</td>
<td>2.30</td>
</tr>
<tr>
<td></td>
<td>Es</td>
<td>3.28</td>
<td>2.30</td>
<td>1.52</td>
</tr>
<tr>
<td>2</td>
<td>Ee</td>
<td>2.58</td>
<td>2.17</td>
<td>1.43</td>
</tr>
<tr>
<td></td>
<td>Es</td>
<td>3.11</td>
<td>2.13</td>
<td>1.28</td>
</tr>
<tr>
<td>3</td>
<td>Ee</td>
<td>2.25</td>
<td>4.27</td>
<td>2.33</td>
</tr>
<tr>
<td></td>
<td>Es</td>
<td>2.36</td>
<td>3.51</td>
<td>2.44</td>
</tr>
<tr>
<td>4</td>
<td>Ee</td>
<td>1.52</td>
<td>1.50</td>
<td>1.38</td>
</tr>
<tr>
<td></td>
<td>Es</td>
<td>2.21</td>
<td>1.50</td>
<td>1.24</td>
</tr>
<tr>
<td>5</td>
<td>Ee</td>
<td>3.31</td>
<td>3.07</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>Es</td>
<td>3.06</td>
<td>2.42</td>
<td>1.46</td>
</tr>
<tr>
<td>6</td>
<td>Ee</td>
<td>3.02</td>
<td>2.56</td>
<td>1.52</td>
</tr>
<tr>
<td></td>
<td>Es</td>
<td>2.47</td>
<td>2.34</td>
<td>2.05</td>
</tr>
</tbody>
</table>

Fig. 6: Theoretical Time-table for One Lesson in the Project.

<table>
<thead>
<tr>
<th></th>
<th>10 minutes</th>
<th>10 minutes</th>
<th>10 minutes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Im</td>
<td></td>
<td></td>
<td></td>
<td>30 min.</td>
</tr>
<tr>
<td>Oral drills</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Written exercises</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading/listening</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ee + Es</td>
<td></td>
<td></td>
<td></td>
<td>30 min.</td>
</tr>
<tr>
<td>explanation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>explanation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>explanation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Most of the oral drills used were written by the author prior to the start of the project and meant for language laboratory use. By kind permission from the publisher and the author one or two were, taken from Hjelmström’s "Speech Drill, Intermediate Stage", and two drills were taken from a language lab programme by Åke Andersson and Anthony Chamberlin, produced for the language lab project sponsored by the Board of Education. As has been pointed out elsewhere (p. 38f) the project arrangement with earphones was not to be considered as a kind of language lab for two reasons mainly: the teacher was not supposed to take part in the lesson and check what was going on, and, secondly, no one with any experience of language labs would dream of using the system as we did, i.e. every lesson for as long as 30 minutes and for all kinds of exercises, including written practice and reading texts. The way the earphones were used at the beginning of each lesson for the oral drills, can be said to have been language lab practice of a kind.

One of the principles followed in the construction of these drills was that the pupils should not use any text. There were pictures, however. The complete pupil lesson material has been bound separately and may be borrowed from the author by the interested reader. The tapes of the complete series of lessons are also available in the GUME archives.

The drills were mostly of the four-phase kind (stimulus - pupil's response - correct response - pupils repetition). Two speakers were used in recording the drills, a man and a woman, both native speakers of English.

Lesson 1: all groups had two oral drills, and the Im group had one more instead of the explanations. The first one practised giving short answers like "Yes, he does", "Yes, they do", "Yes, he was". In the second short questions like "Are you?", "Does he?" were practised. The extra drill used in the Im group only was one made by Åke Andersson and Anthony Chamberlin where simple questions are introduced.

Lesson 2: the groups all had three drills; the Im group had one extra. The first one was a listening drill only, in the second the pupils made questions themselves with the help of a picture sheet (Lesson Materials p. 1), the third came from Svante Hjelmström’s "Speech Drill, Intermediate Stage". These were all questions in the third person singular. The extra drill in the Im group was based on the pictures on pages 2 A and B in the
Lesson Materials.

Lesson 3: the E groups did one drill only, the Im group two. The first one was based on pictures, practising questions in the past tense. The Im group had page 3 A taken from Hjelmström instead of the explanations.

Lesson 4: there were two drills for the Im group; the E groups did both but in a slightly different way. The first one, based on a large picture, was a telephone call, in which the pupils asked a lot of questions like "Do you ...?". The second was a game, Twenty questions, in which they were to ask an unknown person 20 questions to see if they could guess who he was.

Lesson 5: there were three drills in the Im group; the E groups did one and a half of these roughly. The first one, practising negative sentences like "No, I don't read the newspaper every day!", was based on a picture. The other two were oral-aural only. The pupils reacted to stimuli of different kinds by saying "But I don't read books ..." and "No, I don't like tea".

Lesson 6: there were three drills, which practised negative questions and other negative sentences. The Ee group did only the first one, the Es group did one and a half, their explanations being somewhat shorter. The Im group did all three of them. Questions like "Why don't you like coffee?" and tags like "You went to France last year, didn't you?" were practised, and also sentences like /Stimulus: I helped you ./ "...but you didn't help me",

As can be seen from the above description all the groups did the same drills, except that the Im group did more and longer drills to make up for the time spent on explanations in the E groups.

The written drills were all specially composed for the project. The pupils were asked to look up a certain page, instructions as to how this drill should be done were given orally on the tape, one or two examples were done, and then the pupils were given a number of minutes to write. Sometimes they were allowed to go on and do as many pages as they had time for. After this the normal procedure was to read at least a number of the sentences in the correct form so that the pupils could correct their own attempts. Most of the drills were very systematic so that even the Im pupils could see a pattern, even though it was not pointed out to them.
Most of them were of the fill-in type, simply in order to save time. If the pupils had been asked to write out whole sentences they would have spent an inordinately long time on things which, from the project point of view, would have been irrelevant.

The reading texts had been written by Mr David Rush, prior to the project, on my instructions, to be used in language lab programmes. These texts deal with the same structures as the programmes or lessons. The idea of these texts as they were used here was to give the pupils some change, to give them an opportunity to meet the constructions in natural surroundings, and also, to give extra listening practice; the texts were recorded by Englishmen who had some experience of this kind of work (Mr Rush himself is a professional writer and actor). These aims were probably achieved except that the texts were a little too difficult both from the language and the contents and humour point of view. Difficult words were translated in the margin to make reference as quick and as easy as possible. This was felt not to interfere with the strict adherence to an implicit method, since this method is not a direct method in the sense that translations are forbidden; the term Im only refers to the teaching of grammatical structures and occasional translations of words and instructions are not part of the definition.

The Explanations. In the explicit groups the pupils were given grammatical explanations, meant to direct their attention to the problem and to show them what they were doing in their exercises. This combination of "drill and explicit explanation" has, according to Chomsky (1965, p. 51), been claimed as the best method by Wittgenstein. Carroll, on the other hand says (1953, p. 152) that "it may be ... that imitation, practice, and repetition of standard speech patterns will be as effective as grammatical explanations". It should be noted that the pupils were not given grammatical rules that had to be learnt or remembered. Miller’s (1964, p. 98) discussion of the terms implicit and explicit and his contention that one must know the rules implicitly are interesting. The explanations were meant to show the pupils how language works so to say, to try to make them see the regularities in the seeming chaos and to give them a perhaps somewhat sounder view of grammar.

The explanations were also meant to help them make generalizations, and whether this had succeeded or not was to be tested some way or other.
It may be said in this context that the tests did not only take up sentences that had been practised, and the test thus can be said to fulfil this requirement.

The traditional way of explaining the do-construction can be studied, in any of the older school grammars. Some of these are comparative to the point where English is explained with a reference to Swedish ("i frågor med omvänd ordföljd i svenskan"). This seems very unsatisfactory, and moreover I wanted to see if some modification of the transformational-generative grammar could be applied to the teaching of the language (for which it was not meant originally). Experiments with this have, reportedly, been performed successfully elsewhere (e.g. by Professor Owen Thomas in Yugoslavia; oral communication). The difference between the older and the new way of explaining this construction can be illustrated with a reference to Chomsky's (1967, p. 420) figure:

Fig. 7: The General Structure of a Grammar According to Chomsky (1967, p. 420)

The general structure of a grammar would, then, be as depicted in diagram (13):

(13)  \[ \begin{array}{c}
B \Rightarrow \text{Deep structure} \\
\Rightarrow \text{Semantic representation} \\
\Rightarrow \text{Surface structure} \\
\Rightarrow \text{Phonological representation}
\end{array} \]

The mapping \( B \) is carried out by the semantic component, \( T \) by the transformational component; and \( P \) by the phonological component. Generation of deep structures by the base system by the operation \( B \), is determined by the categorial system and the lexicon.

The traditional way is to discuss the surface structure, i.e. what the sentence looks like after the transformation (\( T \)) has been carried out. The differences between the do-construction in questions and negative sentences on the one hand, and between English and Swedish on the other, are here great. What I have tried to do, is to start from the deep structure level and then show how the transformations change this.
The gains hoped for from this new approach were that the pupils should see the regularities, i.e., the fact that what happens when a statement is turned into a question is in many respects the same as what happens when it is made negative, and that they should be able to generalize and generate sentences that they have not heard and practised. Theoretically at least, these things should be facilitated by this new approach. The diametrically opposed opinions on the value of explanations, represented by men like Politzer and Brooks on the con-side, and Woodworth and Wertheimer on the pro-side, are described by Rivers (1964, p. 120).

In constructing the explanations I thought that it was necessary to give a visual as well as an audial picture of what was happening. A black-and-white representation was not enough, and so other ways were attempted. First I tried to use the overhead projector. This approach was dropped because it was considered impossible for the teacher or assistant to do this easily and in exactly the same way in all classes. Moreover, the number of sheets needed became so large that the operation was very unwieldy. The second attempt was with films. A few films were made but this idea was dropped mainly for two reasons: it became too expensive since projectors had to be bought, and it was technically very unsatisfactory. Professional help would have been too expensive, and the films I made were not of acceptable quality. The third method tried was the one I finally used: slide pictures. Colours were used to indicate the various morphemes and operations. The main idea that I wanted to get across to the pupils was the movement of the finite morpheme, which is the explanation why such common mistakes as "Does he smokes?" and "He did not saw it" are impossible.

The second and third explanations in each lesson were built up around one or two pages in the pupils' booklets where a number of sentences were treated in a way similar to that in the slides. The model used was a modified transformational approach of the Chomsky type as presented in the original, "old" form in Syntactic Structures. The main modification was that the finite morphemes were in their "right" positions when the operation started, i.e., after and attached to the verb (e.g., He looks) and not in the Aux position (e.g., He s look). The "s" in this way had to move twice, first to the Aux position in front of the verb, and then from there to the "Q position" at the head of the sentence. This was felt to be a necessary
modification and it was also approved by the expert consulted (Professor Ellegård).

The problems dealt with in the project were not all the variations of the do-construction, but only the most important parts. Thus the strongly affirmative do (I do like British food) was not introduced at all and the problems concerned with sentences starting with question words as subject and object respectively (Who saw you? and Who did you see?) were not treated systematically.

After an introductory lesson with the emphasis on how to answer questions, meant also as an introduction to the project and to let the pupils hear a lot of questions, three lessons were devoted to the question transformation. I started with the third person, then took preterite forms and finally took what most teachers would quite naturally start with, questions with "do". The reason for this was that I felt it would be easier to use the model of explaining the construction that I had decided on, if there was a finite morpheme they could see. This meant showing how the "s" moved around, next how an "ed" travelled the same way. See Appendix A for examples of this. In the fourth lesson I then introduced a zero (or "ring" as I called it in the Ee group for simplicity's sake) which then moved in the same manner. The idea was to make the pupils realize that this was a morpheme (this term was never used however) which reacted just as the others did.

How did this new approach succeed? Well, this is not the right place to comment on this. That will be done later in the discussion on the results on tests and in attitudes. Here I shall limit myself to making just a few comments, arising partly from my own observations and on discussions with teachers and assistants.

The idea of using the transformational approach was, of course, new and unusual and certainly not intended by Chomsky (cf 1967, p. 407), and the teachers, as expected, reacted rather strongly, most of them in a negative way. Only one has said that the explanations were simple and easy to follow.
Evaluation Instruments

All the pupils taking part in the project were given a fairly comprehensive battery of tests. About a week before the project started they were given a one-hour achievement test, the pre-test, testing their knowledge of the do-construction quite thoroughly. During the project, two hours were devoted to intelligence tests of a standardized kind. Immediately after the teaching period the pupils were given a post-test to test progress. This was identical with the pre-test. The first period after the project was finished the teachers themselves gave the students an attitude test, and at the same time the teachers also filled out two attitude tests. About a month after the end of the project a re-test or retention test was given. This was also identical with the pre-test. The achievement test was thus given three times in exactly the same form. In some of the classes PACT, an American listening comprehension test constructed by John B. Carroll, was also given, but this will not be dealt with here at all.

The tests will now be described in some detail. The reader is also referred to appendices B, C, and D where all the tests are reprinted in their original form.

The Achievement Test. Since this project does not deal with the teaching of English in all its aspects but only the teaching of grammar and grammatical patterns, it was thought fit to test only what would be taught, i.e. the grammatical structure dealt with in the six lessons of the project proper, in this case the do-construction in questions and negative sentences, affirmative and interrogative. No attempt was made to establish by way of testing their overall knowledge of English. Such things as vocabulary, listening comprehension, speaking and reading were not meant to be included. It was also considered necessary to limit the test to one school period, both because of all the time the classes and teachers had to spend on the project and because of pupil motivation which is negatively influenced by too much testing. Among the guiding principles were also the following: since about 400 pupils were going to be tested and since correcting had to be done fairly quickly as there were three sets of tests and also a large number of other tests, there had to be a test that could be marked quickly but reliably. The best method then seemed to be various kinds of multiple choice tests and tests where the pupils marked their answers with x'es rather than with written words. Another principle about which language
teachers seem to be hesitant and psychologists seem to be confident is that of giving pupils a number of answers to choose from, only one of which is right. Since one of the aims of the project was to construct tests, it was felt that some such tests could be included, tests which could be correlated with the other kinds to see if there are any negative effects and to check reliability (cf. p. 63). The achievement test (see appendix B) consisted of 12 parts, each with 10 items. The two first of these deals with the problem of how to answer questions, eight (C through J) deal with the problem of how to ask questions - there are one or two items in D and J which are negative sentences - and the last two take up negative sentences. Parts F and L are of the "pure" multiple choice type where incorrect sentences and correct ones are mixed and the pupil must choose the right ones. Some parts deal with the auxiliaries and some with main verbs. In G and K the student must decide whether to use "do" etc or not and which is the right form, in test I he only needs to pick out the right form. In C, on the other hand, he has to decide on the right form of the main verb. In two tests, D and J, he has to decide whether a certain sentence is correct or not without hearing or seeing more than one alternative. In D the pupils only listened; the items read were the same as those of J. Parts E and H were the "active" tests, differing in the respect that E meant that the pupil had to ask a question when told or rather asked to do so, whereas H was a kind of transformation test where a statement was to be made into a question. The first two parts, finally, tested what I would call "short answers" and "long answers", i.e. answers to yes-no-questions and question-word-questions respectively.

It should be pointed out that there was doubt in the author's mind concerning the value of some of the tests, but it was felt that even rather dubious kinds should be tested and proved good or bad as instruments for measuring pupil knowledge in these fields.

There was more testing of interrogative do-constructions than of the negative counterpart. This was due to the fact that the questions took up four of the six lessons in the project, that it was found to be easier to construct tests of the question type and also that the correlation between the two is so high that it makes little difference which is preferred. The two types for the negative construction were also felt to be reliable tests whereas some of the question tests were of the experimental kind described above.
The test was tried out quite carefully. The original version consisted of no less than 16 parts, most of which were active. This was given in two classes, one ak and one sk. The pupils were given as much time as was needed for about 90% of the pupils to finish (it took two full school periods of 40 minutes each), the results were processed, item analyses were performed. The outcome was a new test with set times which, after certain corrections resulting from trying it out in a number of classes, became the final test used in the project. There were no speed tests; the time limit was purely administrative.

All instructions were recorded on tape. These were given in Swedish. The test itself is all in English except for the printed instructions. The tape was started at the beginning of the lesson and ran for 37 minutes. Thus the tape was "responsible" for correct timing, all groups were given the same time. The test as it stands can be said to be methodologically "correct", i.e. it corresponds well to the recommendations for the teaching and practising of grammatical structures given in the "Läroplan för grundskolan".

Some results of the revision work should perhaps be mentioned. Tests which turned out to be so complicated that some pupils could not do anything since they did not understand what they were expected to do, were cut out. In the first version there was a translation test of a kind which was also omitted. This was omitted not because it was thought methodologically wrong, but because the pupils did not understand what they were supposed to do and primarily because it takes so long.

Some tests were changed slightly so that the pupils in the final version used x'es only. This was done for two reasons: it is quicker for the pupils and more questions can be included in the same time, and it is quicker and easier to mark.

In correcting "active" answers the assistants who did this job were instructed to look only at the do-constructions. Other words in the sentences were overlooked and mis-spellings not considered. Spellings like "kome, paintid, stopps" were thus marked as correct but of course not "came, kr.ne" for "come".

The pupils were told that if they did not understand the instruction or know what they were supposed to do, they should guess and do as best they
could. If there were difficulties they could not master, they should skip them and go on. The pupils' results are the number of correct answers produced, i.e. the maximum is 120 points.

**Test Characteristics.** The Main Results of the project, i.e. the results on the whole pre-, post-, and re-tests and, most importantly, the progress figures, will be given in a following chapter. Here I shall give and discuss briefly some results concerning the parts of the tests and some other figures which reflect on the reliability of the tests.

The unadjusted (for an explanation of this term, see the beginning of chapter 4), "raw" means for the 12 parts of the achievement test as pre- and post-test were for the whole population as shown in table 4.

Table 5. Means in Raw Scores on the Various Parts of the Pre- and Post-Tests

<table>
<thead>
<tr>
<th>Part</th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>7.77</td>
<td>8.62</td>
</tr>
<tr>
<td>B</td>
<td>4.98</td>
<td>5.73</td>
</tr>
<tr>
<td>C</td>
<td>5.97</td>
<td>6.64</td>
</tr>
<tr>
<td>D</td>
<td>6.61</td>
<td>6.99</td>
</tr>
<tr>
<td>E</td>
<td>3.26</td>
<td>4.30</td>
</tr>
<tr>
<td>F</td>
<td>6.23</td>
<td>6.88</td>
</tr>
<tr>
<td>G</td>
<td>4.69</td>
<td>5.47</td>
</tr>
<tr>
<td>H</td>
<td>2.71</td>
<td>3.93</td>
</tr>
<tr>
<td>I</td>
<td>4.42</td>
<td>5.21</td>
</tr>
<tr>
<td>J</td>
<td>6.08</td>
<td>6.57</td>
</tr>
<tr>
<td>K</td>
<td>5.02</td>
<td>5.53</td>
</tr>
<tr>
<td>L</td>
<td>6.46</td>
<td>6.91</td>
</tr>
<tr>
<td></td>
<td><strong>64.08</strong></td>
<td><strong>72.91</strong></td>
</tr>
</tbody>
</table>

The total mean on the Re-test was **75.31**.
The above figures show that there was progress (for further discussion of progress see p. 75ff below) in all parts of the test and that part 1 (test A) had the highest mean. Part 8 (test H) had the lowest; this is the "active" test in which the pupils were asked to make statements into questions. Part 9 (test I) is also very low, perhaps somewhat surprisingly. Part 4 (test D) - which was difficult and which correlates poorly with the total - is fairly high, due mainly, no doubt, to the fact that it was a two-choice test.

The curves for the pre- and post-tests (fig. 8) indicate that there was no ceiling effect in the test but rather that the test turned out to give an approximately normal frequency distribution.
Fig. 8: Overall Distribution of Pupils' Results on the Pre- and Post-Tests.

---

Pre-Test

18-25: 3
26-33: 9
34-41: 17
42-49: 39
50-57: 61
58-65: 51
66-73: 56
74-81: 37
82-89: 28
90-97: 11
98-105: 8
106-113: 8
114-121: 1
122-129: 1

\( \bar{x} = \text{mean} \)

Post-Test

18-25: 1
26-33: 9
34-41: 12
42-49: 17
50-57: 34
58-65: 34
66-73: 53
74-81: 47
82-89: 38
90-97: 38
98-105: 30
106-113: 24
114-121: 15
122-129: 7

\( \bar{x} = \text{mean} \)
Was this a valid and reliable test, good enough to be used for diagnostic and possibly prognostic purposes? This question can, at least partly, be answered, I think, by checking various correlations and by calculating the reliability coefficient. In Table 6 correlations are given for the different parts of the test in relationship to each other and to the pre-test as a whole.

### Table 6. Correlations between the Parts and the Whole of the Pre-test.

<table>
<thead>
<tr>
<th>Part</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>.57</td>
<td>.43</td>
<td>.30</td>
<td>.50</td>
<td>.41</td>
<td>.42</td>
<td>.35</td>
<td>.40</td>
<td>.50</td>
<td>.51</td>
<td>.70</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>.57</td>
<td>.38</td>
<td>.69</td>
<td>.48</td>
<td>.49</td>
<td>.52</td>
<td>.55</td>
<td>.48</td>
<td>.66</td>
<td>.57</td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>.30</td>
<td>.57</td>
<td>.39</td>
<td>.35</td>
<td>.52</td>
<td>.46</td>
<td>.36</td>
<td>.48</td>
<td>.52</td>
<td>.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>.40</td>
<td>.32</td>
<td>.22</td>
<td>.36</td>
<td>.26</td>
<td>.45</td>
<td>.39</td>
<td>.43</td>
<td>.55</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>.54</td>
<td>.46</td>
<td>.65</td>
<td>.54</td>
<td>.50</td>
<td>.64</td>
<td>.55</td>
<td>.83</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>.29</td>
<td>.46</td>
<td>.34</td>
<td>.34</td>
<td>.38</td>
<td>.45</td>
<td>.64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>.50</td>
<td>.46</td>
<td>.31</td>
<td>.46</td>
<td>.42</td>
<td>.65</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>.45</td>
<td>.44</td>
<td>.52</td>
<td>.44</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I</td>
<td></td>
<td>.43</td>
<td>.53</td>
<td>.40</td>
<td>.67</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td></td>
<td>.48</td>
<td>.50</td>
<td>.65</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td></td>
<td>.50</td>
<td>.77</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td></td>
<td></td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ N = 330 \]

The most important column is the one to the right, in which correlations between the individual parts and the total are given. \( N \) is throughout about 330, and the critical values for significance are .11 and .15 for the 5 and 1% levels respectively, so all the values are highly significant. When these figures are compared to those for the post-test (these have also been calculated) it turns out that they are almost identical. Only the correlations between tests D and F and the total varies; they are .65 and .78 for the post-test compared to .55 and .64 above. These two tests also have the lowest correlations throughout. This is also evident in
table 6, where test D has by far the lowest correlation with, for example, grade in English. It is obviously not a very good test.

The correlations for the various parts of the test and grades in English, IQ and progress are:

Table 7. Pre-test Correlations.

<table>
<thead>
<tr>
<th>Grade</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>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>.66</td>
<td>.72</td>
<td>.48</td>
<td>.35</td>
<td>.65</td>
<td>.46</td>
<td>.47</td>
<td>.53</td>
<td>.51</td>
<td>.49</td>
<td>.65</td>
<td>.56</td>
<td>.77</td>
</tr>
<tr>
<td>IQ</td>
<td>.51</td>
<td>.53</td>
<td>.43</td>
<td>.26</td>
<td>.45</td>
<td>.29</td>
<td>.39</td>
<td>.39</td>
<td>.37</td>
<td>.45</td>
<td>.46</td>
<td>.60</td>
<td></td>
</tr>
<tr>
<td>Progress I</td>
<td>.22</td>
<td>.10</td>
<td>.02</td>
<td>.02</td>
<td>.01</td>
<td>.04</td>
<td>.02</td>
<td>.03</td>
<td>.07</td>
<td>.02</td>
<td>.08</td>
<td>.08</td>
<td>.04</td>
</tr>
</tbody>
</table>

In order to find out whether a fairly small number of parts would give results so satisfactory that only parts of the test need be used with roughly the same results, eight parts were chosen and grouped. The groups were called S₁, S₂, and S₃ (S = sum). S₁ consisted of parts A, B, and C and tested the ability to give correct answers. S₂ consisted of parts E, F, and H and tested how well the pupils could construct questions. S₃ consisted of parts K and L and tested their ability to construct correct negative sentences. These three groupings were also correlated with various other factors. Some of the most interesting results here were those given in table 8.

Table 8. Correlations of Pre-test Groupings.

<table>
<thead>
<tr>
<th></th>
<th>Pre-test Total</th>
<th>Grade in English</th>
<th>Progress</th>
<th>S₂</th>
<th>S₃</th>
</tr>
</thead>
<tbody>
<tr>
<td>S₁</td>
<td>.90</td>
<td>.75</td>
<td>.60</td>
<td>.13</td>
<td>.73</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.76</td>
</tr>
<tr>
<td>S₂</td>
<td>.88</td>
<td>.65</td>
<td>.46</td>
<td>-.03</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.69</td>
</tr>
<tr>
<td>S₃</td>
<td>.88</td>
<td>.70</td>
<td>.53</td>
<td>.09</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
All these correlations are highly significant except those for progress which will be discussed later (p. 93). The answer to the question raised above (p. 61) whether this was a valid and reliable test must, I think, be answered, in the affirmative.

If a teacher were to give the achievement test in a class he did not know, he would be able to class 6 out of 10 pupils correctly, according to grades, even with just one of the parts above, say $S_1$, and he would be able to do this in about 10 minutes.

**Reliability.** The reliability of the achievement test has also been established by the split-half method. The results are as shown in table 9.

Table 9. Reliability Coefficients of the Achievement Test.

<table>
<thead>
<tr>
<th></th>
<th>All Pupils</th>
<th>$sk$</th>
<th>$ak$</th>
</tr>
</thead>
<tbody>
<tr>
<td>the whole test</td>
<td>.92</td>
<td>.88</td>
<td>.92</td>
</tr>
<tr>
<td>$S_1$ (A+B+C)</td>
<td>.90</td>
<td>.81</td>
<td>.92</td>
</tr>
<tr>
<td>$S_2$ (E+F+H)</td>
<td>.84</td>
<td>.82</td>
<td>.81</td>
</tr>
<tr>
<td>$S_3$ (K+L)</td>
<td>.80</td>
<td>.69</td>
<td>.82</td>
</tr>
<tr>
<td>$D+G+I+J$</td>
<td>.73</td>
<td>.69</td>
<td>.65</td>
</tr>
</tbody>
</table>

For the purposes of this investigation (comparisons between groups) a reliability coefficient of .50 could be considered acceptable. The above figures indicate that all the groupings are well above this for all pupils. Even for diagnostic and prognostic purposes with individual pupils, where coefficients of .90 and .80 are required, most of the tests are reliable enough. For some reason this seems to be true in particular of the less gifted pupils in ak.

One of the aims of this project was to construct and try out various tests. It is obvious from the figures in table 8 that all the tests have proved good enough. It is particularly interesting to find that the multiple choice
parts have proved as reliable as the "active" parts, something which is sometimes questioned, especially by language teachers. It should be noted, however, that parts D, G, I, and J have the lowest figures (cf what was said about part D above, p.616); they obviously represent a less satisfactory kind of test.

The intelligence tests used were three parts of the so-called DBA tests (DBA = differentiell begåvningsanalys, i.e. differential intelligence analysis) constructed and standardized by Professor Härnqvist of the University of Gothenburg. The DBA test was chosen because it is one of the best-known IQ tests for this particular age group. The three parts used were the Verbal, Spatial, and Inductive tests (also referred to as "similarities", "blocks" and "letter combinations"). They were chosen because, taken together they give, according to the author of the test, a reliable measure of general intelligence and ability.

The tests were given in the classes by specially trained assistants and took two hours; in most classes they were given on two different occasions. For a full description of these tests the interested reader is referred to the manual published for these tests. For copyright reasons they can not be reprinted here.

The attitude tests were constructed by the present author along lines used for similar tests in other projects. Many of the points were originally suggested by Professor Stukát.

The teacher questionnaire consisted of two parts, one with questions on methods in general, one pertaining to the project.

The pupil attitude questionnaire also consisted of two parts, one to discover what pupils of their age think about the study of English in general, the other more extensive part to find out about pupil reactions to the project.

Survey of the Evaluation Instruments

A survey of the various evaluation instruments and figures is given in table 10, where the results are given for boys and girls and for sk and ak separately together with the totals. To facilitate the reading of this table the following explanations should given:

IQ tests: The results of the various factors are given in so-called Stanine points, which means a 9-graded score with a mean of 5 and a
standard deviation of 2. The IQ total has been transformed through a linear scale transformation to T-points, which means a scale with a mean of 50 and a standard deviation of 10.

Grades: The grades of the individual school subjects are given in their ordinary Swedish form, i.e. a 5-graded scale with a mean of 3 and an SD of 1. Since the intention was to add IQ points to grade points to get a composite measure of scholastic ability the grades had to be transformed to a scale with roughly the same SD as the IQ points. After adding the grades (a maximum of 15 and a mean of 9, SD 3) this figure was multiplied by three, and thus a scale with a mean of 27 and an SD of 9 was created.

Achievement test: A total of 120 points was possible.

S1-3: These figures refer to the sums of certain parts of the pre-test which were considered to be of interest especially for later processing in correlations. S1 was made up of tests A, B and C; S2 of tests E, F and H; S3 of K and L.

Attitudes: The most "positive" answer to each question was given a 5 (for some 4), the most negative 1. Maximum score = 40.
Table 10. A Description of the Measuring Instruments in Terms of Means of the Various Tests, Including Standard Deviations for the Totals.

<table>
<thead>
<tr>
<th></th>
<th>Total Means</th>
<th>SD</th>
<th>sk all</th>
<th>sk boys</th>
<th>sk girls</th>
<th>ak all</th>
<th>ak boys</th>
<th>ak girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>IQ Test - Total</td>
<td>50.53</td>
<td>9.70</td>
<td>53.92</td>
<td>53.66</td>
<td>54.15</td>
<td>42.49</td>
<td>43.00</td>
<td>41.60</td>
</tr>
<tr>
<td>Verbal Test</td>
<td>5.08</td>
<td>1.83</td>
<td>5.72</td>
<td>5.77</td>
<td>5.69</td>
<td>3.59</td>
<td>3.61</td>
<td>3.55</td>
</tr>
<tr>
<td>Inductive Test</td>
<td>5.14</td>
<td>1.93</td>
<td>5.68</td>
<td>5.51</td>
<td>5.82</td>
<td>3.90</td>
<td>4.03</td>
<td>3.68</td>
</tr>
<tr>
<td>Spatial Test</td>
<td>5.02</td>
<td>1.91</td>
<td>5.36</td>
<td>5.33</td>
<td>5.38</td>
<td>4.25</td>
<td>4.27</td>
<td>4.21</td>
</tr>
<tr>
<td>Grade Total</td>
<td>28.68</td>
<td>8.75</td>
<td>32.71</td>
<td>31.34</td>
<td>33.92</td>
<td>19.58</td>
<td>19.09</td>
<td>20.40</td>
</tr>
<tr>
<td>Grade English</td>
<td>3.21</td>
<td>1.07</td>
<td>3.67</td>
<td>3.46</td>
<td>3.86</td>
<td>2.14</td>
<td>2.05</td>
<td>2.30</td>
</tr>
<tr>
<td>Grade Swedish</td>
<td>3.21</td>
<td>1.04</td>
<td>3.65</td>
<td>3.40</td>
<td>3.88</td>
<td>2.21</td>
<td>2.14</td>
<td>2.32</td>
</tr>
<tr>
<td>Grade Maths</td>
<td>3.13</td>
<td>1.07</td>
<td>3.54</td>
<td>3.56</td>
<td>3.53</td>
<td>2.18</td>
<td>2.18</td>
<td>2.17</td>
</tr>
<tr>
<td>Pre-Test</td>
<td>64.08</td>
<td>18.21</td>
<td>70.59</td>
<td>69.03</td>
<td>71.95</td>
<td>48.95</td>
<td>47.03</td>
<td>52.16</td>
</tr>
<tr>
<td>S₁ of Pre-Test</td>
<td>18.71</td>
<td>5.77</td>
<td>20.90</td>
<td>20.43</td>
<td>21.33</td>
<td>13.59</td>
<td>12.77</td>
<td>14.95</td>
</tr>
<tr>
<td>S₂ of Pre-Test</td>
<td>12.20</td>
<td>5.15</td>
<td>13.48</td>
<td>13.25</td>
<td>13.70</td>
<td>9.18</td>
<td>8.74</td>
<td>9.92</td>
</tr>
<tr>
<td>S₃ of Pre-Test</td>
<td>11.48</td>
<td>4.12</td>
<td>12.83</td>
<td>12.41</td>
<td>13.21</td>
<td>8.28</td>
<td>7.90</td>
<td>8.92</td>
</tr>
<tr>
<td>Post-Test</td>
<td>72.91</td>
<td>20.84</td>
<td>81.86</td>
<td>78.99</td>
<td>84.47</td>
<td>52.76</td>
<td>50.81</td>
<td>56.08</td>
</tr>
<tr>
<td>Re-Test</td>
<td>75.31</td>
<td>20.73</td>
<td>83.87</td>
<td>81.82</td>
<td>85.70</td>
<td>55.06</td>
<td>53.77</td>
<td>57.41</td>
</tr>
<tr>
<td>Attitude</td>
<td>25.84</td>
<td>4.98</td>
<td>25.79</td>
<td>25.74</td>
<td>25.84</td>
<td>25.94</td>
<td>25.74</td>
<td>26.29</td>
</tr>
</tbody>
</table>
Comments on the figures: The IQ mean of 50.53 and standard deviation of 9.70 indicate that the pupil population can be considered as representative. The means of the individual IQ tests are also very close to the theoretical means mentioned above.

The grade means indicate what has been the impression among teachers for a long time, namely that the theoretical mean of 3.00 is no longer the true mean. The grades have "gone up" and the means are 3.21, 3.21, and 3.13 for English, Swedish, and mathematics respectively. The considerable grade differences between sk and ak (as compared with the smaller IQ differences discussed above, p. 44f seem to me to indicate that the pupils elect sk and ak more on the basis of their grades in English or on how well they feel they have succeeded, rather than on ability, on how well they might succeed. The differences between sk and ak in grades and IQ are 13.13 and 11.43 respectively. The standard deviations for ak are 5.09 and 7.43. This shows that ak is 2.6 SD below sk in grades but only 1.6 SD below in IQ.

There are no statistically significant differences between boys and girls which is quite in line with what could be expected. The small tendencies in grades (girls higher in English and Swedish, boys in mathematics) are also typical and well-known (Anastasi, 1958, pp. 472f, 492f).

The pre-, post- and re-test means for sk and ak together with their standard deviations were as follows:

Table 11. Achievement Test Means Per Course.

<table>
<thead>
<tr>
<th></th>
<th>sk</th>
<th></th>
<th>ak</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>mean</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Test</td>
<td>70.59</td>
<td>16.35</td>
<td>48.95</td>
<td>12.43</td>
</tr>
<tr>
<td>Post-Test</td>
<td>81.86</td>
<td>17.28</td>
<td>52.76</td>
<td>12.42</td>
</tr>
<tr>
<td>Re-Test</td>
<td>83.87</td>
<td>17.39</td>
<td>55.06</td>
<td>12.12</td>
</tr>
</tbody>
</table>
The interesting figures here are the standard deviations. They agree with the well-established fact that the deviation increases with increased learning and higher scores. (Cf Anastasi, 1958, p. 211: "individual differences usually increase with practice").

Drop-outs

A fairly large number of pupils have been dropped in the reporting of the results. They were absent from two or more lessons. Out of a total of 432 pupils 76 have been left out for this reason. To check whether this has influenced the results various computations have been made. The number of drop-outs for various categories were as follows:

- from sk: 50
- from ak: 26
- girls: 37
- boys: 39
- Im: 27
- Ee: 29
- Es: 20
- Social group 1: 19
- 2:24
- 3:25
- Ø:8

These figures indicate that no significant differences are to be found. The assumption, for example, that more ak than sk pupils would disappear turned out to be wrong.

I shall also give their results on the different tests together with those for the main population for comparison.

Table 12. Results of the Drop-outs as Compared to the Population as a Whole.

<table>
<thead>
<tr>
<th>Test</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>IQ Test - Total</td>
<td>48</td>
<td>48.65</td>
<td>10.24</td>
<td>324</td>
<td>50.53</td>
<td>9.70</td>
</tr>
<tr>
<td>Verbal Test</td>
<td>55</td>
<td>4.82</td>
<td>1.87</td>
<td>340</td>
<td>5.08</td>
<td>1.83</td>
</tr>
<tr>
<td>Inductive Test</td>
<td>55</td>
<td>5.18</td>
<td>2.08</td>
<td>340</td>
<td>5.14</td>
<td>1.93</td>
</tr>
<tr>
<td>Spatial Test</td>
<td>61</td>
<td>4.75</td>
<td>2.01</td>
<td>337</td>
<td>5.02</td>
<td>1.91</td>
</tr>
<tr>
<td>Grade Total</td>
<td>75</td>
<td>28.42</td>
<td>9.13</td>
<td>345</td>
<td>28.68</td>
<td>8.75</td>
</tr>
<tr>
<td>Grade English</td>
<td>75</td>
<td>3.16</td>
<td>1.09</td>
<td>351</td>
<td>3.21</td>
<td>1.07</td>
</tr>
<tr>
<td>Grade Swedish</td>
<td>75</td>
<td>3.20</td>
<td>1.01</td>
<td>349</td>
<td>3.21</td>
<td>1.04</td>
</tr>
<tr>
<td>Grade Maths</td>
<td>75</td>
<td>3.09</td>
<td>1.15</td>
<td>349</td>
<td>3.13</td>
<td>1.07</td>
</tr>
<tr>
<td>Pre-test</td>
<td>65</td>
<td>66.02</td>
<td>18.54</td>
<td>329</td>
<td>64.08</td>
<td>18.21</td>
</tr>
<tr>
<td>Post-test</td>
<td>58</td>
<td>71.33</td>
<td>22.65</td>
<td>325</td>
<td>72.91</td>
<td>20.84</td>
</tr>
<tr>
<td>Re-test</td>
<td>61</td>
<td>74.89</td>
<td>22.37</td>
<td>323</td>
<td>75.31</td>
<td>20.73</td>
</tr>
<tr>
<td>Attitude</td>
<td>33</td>
<td>25.06</td>
<td>6.41</td>
<td>334</td>
<td>25.84</td>
<td>4.98</td>
</tr>
</tbody>
</table>
For the six main factors t-tests have been made but no significant differences were found, which means that the fairly large number of drop-outs have not influenced the results, and missing data can thus be considered negligible.
4. THE RESULTS

Introduction. All the results of the tests were processed at Göteborgs Datacentral för Forskning och Högre Utbildning by computer IBM 360/50 H and the ISR (Institute for Social Research, University of Michigan) system and BMD (Bio-Medical Computer Programs from UCLA) were used in running the programmes. A total of 62 variables was used including pupil identification, method, social group, sk-ak, intelligence test results, grades, results of pre-, post-, and re-tests, and among these the 12 different parts of the pre- and post-tests and three groupings of these, attitude test results and certain sums and differences. The processing gave analyses of covariance according to sk-ak, analyses of variance according to intelligence test tertile, correlation tables, lists of results in the different variables for boys, girls, sk, ak, etc. It should be mentioned that only pupils who have attended at least five of the six lessons of the project have been included in the results given below. The numbers for different tests vary slightly owing to stray absences.

Before going into a description of the various results I shall give a brief outline of the statistical procedures used.

Computations and Statistical Procedures

In the following section I shall briefly describe the computations made and the statistical procedures used, which will give an idea of the designs used and the reasons for choosing them.

Analysis of covariance. As has been stated earlier in this report the main aim of the investigation has been to compare three different methods of teaching the do-construction. From a statistical point of view it is desirable to select individual subjects randomly for teaching strategies (treatment groups). In my case, however, it was impracticable for administrative reasons. The school situation required that I used the school classes as they were. It was not possible to reorganize them into "matched" classes for the purposes of the experiment. Instead of controlling the concomitant variable (see below) experimentally, I controlled it statistically
by an analysis of covariance.

In experiments of this kind it is necessary to control background or concomitant variables that can be suspected of influencing the results. In my case it was even more important to do so as the sampling unit was the school class, not the individual subject. Control of concomitant variables increases the possibility of interpreting differences between the treatment groups (in my case, Im, Ee, and Es) as "true" treatment effects and not as accidental variation in extraneous factors. This means that if treatment A gives better results than treatments B and C and the intellectual ability of the pupils in the three groups has not been controlled, it would be impossible to say whether the superiority of treatment A should be explained by the intelligence factor or by the treatment.

If we have three pupils with IQ's of 90, 100, and 110, who take part in a project and make certain progress as shown in fig. 9, then the question arises which of the three has made greatest progress taking into account their different ability. We then make Progress our criterion (see below) and IQ our covariate, and by means of a statistical process we put the three pupils on the same IQ level, which means compensating A for his lesser ability by adding to his "raw" scores and subtracting from C's. The results in the unadjusted scores (where they have all made progress in relation to their ability) and the adjusted scores will then be as tables X and Y show.
Fig. 9: The Principles of Analyses of Covariance.

Pupil A
IQ = 90

Pupil B
IQ = 100

Pupil C
IQ = 110

Table X: Progress, Unadjusted.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>10</td>
<td>12</td>
</tr>
</tbody>
</table>

Table Y: Progress, Adjusted.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>
Since, theoretically, an unlimited number of variables could influence the results, the practical problem arises of deciding which variables are most likely to do so. In the present study I used various measures of pupils' progress (see below) as treatment measures and a composite IQ - school grade score as the concomitant variable (= covariate). The whole population (sk + ak) was used in two of the analyses, and in two, sk and ak were treated separately. A table may help to clarify this:

Table 13. Analyses of Covariance Reported

<table>
<thead>
<tr>
<th>Analysis no</th>
<th>Number of treatment groups 1/</th>
<th>Treatment Measure (=Criterion)</th>
<th>Covariate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>Progress I</td>
<td>IQ + Grades</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>Progress I</td>
<td>IQ + Grades</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Progress II</td>
<td>IQ + Grades</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>Progress II</td>
<td>IQ + Grades</td>
</tr>
</tbody>
</table>

1/3 = sk and ak together, thus a 1 x 3 design

6 = sk and ak kept apart, thus 2 courses and 3 treatments, 2 x 3 = 6

Progress I is the difference between the pupil's score on the post-test and the pre-test. It is a measure in raw scores of the progress he has made during the experiment. Progress II is the difference between the re-test and the pre-test. This measure is meant to show the retention of the progress made.

Analyses were also made for the post-test and the re-test using the pre-test as covariate. These results will only be referred to by way of comment on some of the Progress figures.

Later in this chapter the terms unadjusted and adjusted scores will appear. The unadjusted scores refer to the above-mentioned raw scores (cf fig. 10), whereas adjusted scores refer to scores corrected for differences in the covariate.
Analyses of variance. Beside the analyses of covariance a number of analyses of variance have been performed. As has been demonstrated earlier in this report, the division of pupils into the two courses sk and ak is not optimal with regard to the variation in intelligence in the pupil population. I thought, therefore, that an analysis of variance in which the population was divided into parts according to intelligence would give further information about the value of the three teaching methods in relation to pupil ability (cf p. 3, aim 2).

The population was divided into three equal parts according to DBA intelligence scores, called U, M, and L, for Upper, Middle, and Lower third. We decided to use a so-called two-way classification design with three categories in each variable (3 IQ levels x 3 teaching methods = 9 cells). At the time of data processing, however, the computer programme at disposal could not manage the design because of missing data (drop-outs in the form of stray absences). Thus we had to use a one-way classification design, i.e. for each intelligence level separately a composite test of significance was made of the differences between the three treatment means. The main disadvantage of this design is that no interaction term (intelligence level x teaching method) can be obtained.

The following figure shows the organization of data for each group of three analyses of variance:

```
<table>
<thead>
<tr>
<th></th>
<th>Im</th>
<th>Ee</th>
<th>Es</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

Such triplets of analyses of variance have been performed on the following treatment (criterion) measures;

1. Progress I
2. Progress II
3. Progress III (the difference between re-test and post-test scores).
It should be emphasized that the division of the population into three intelligence groups was made after the experiment was completed. For administrative reasons it would have been impossible to have had this division before the experiment and then to have assigned pupils at each intelligence level evenly among the treatments. However, the procedure that was used accounts for the variation in the number of subjects in the various cells.

Main Results

We have now come to the point when we are ready to present and discuss the main results of the project, results which will be the first tentative and preliminary answers to the questions stated at the beginning of the report as the aims of this investigation. I shall first give the results of the analyses of covariance and discuss these, then present figures obtained in the analyses of variance. In later sections of this chapter I shall also report on pupil and teacher attitudes, some interesting correlations.

Analyses of covariance. Which method succeeded best? The overall figures answering this question are given in table 14 below. They show the Im method ahead of the others and the Ee method as the "loser". It should be emphasized, however, that the t value (1.67) is not significant and no definite conclusions can be drawn. (If we compare these figures with the overall post-test results adjusted for the pre-test (see p. 73 above), we find that the Im-Ee difference is significant, however. (t = 2.05; \( t_{\text{crit}} = 2.01 \))

Table 14. Progress I by Method Only, Adjusted Means.

<table>
<thead>
<tr>
<th></th>
<th>Im</th>
<th>Ee</th>
<th>Es</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10.1</td>
<td>7.8</td>
<td>8.5</td>
</tr>
</tbody>
</table>

N = 76 97 103

t value = 1.67 (Im-Ee)
In view of this, one conclusion seems permissible: the Im method is quite useful and realistic. It has been said (by Hjelmström and Rudal, for example, "Dagens Nyheter", January 22, 1969) that the "extreme direct method" is "helt förkastlig" ("completely worthless"). In the light of these results that does not seem to be validated. It is most likely that modified versions of the Ee and Es methods might succeed better, but there is no indication that the Im method would be useless. As a matter of fact, our results this far indicate that Im is the better method, in one computation even significantly so.

The first answer to our second question, that of how various methods suit pupils of different ability, is given in table 15 where the results are given according to method and course.

Here we get a slightly different picture. The pupils who take ak represent a much lower intelligence mean even though the split-up in courses - as has been shown above, p.44f. - does not follow what would theoretically be desirable. These adjusted figures indicate that the ak pupils have not done as well as the sk pupils even when their lesser IQ and grades are taken into account. The figures in table 15 also show that in sk the Es group did best whereas in ak the Im group scored the highest points. The sk difference is not significant. In ak the difference Im-Es is significant but not the difference between Im and Ee. If we compare the post-test means adjusted for the pre-test, we find that the t value for the Im-Ee difference is 1.96; $t_{crit}$ is 2.01.

Table 15. Progress 1 by Method and Course. Adjusted Means.

<table>
<thead>
<tr>
<th></th>
<th>Im</th>
<th>Ee</th>
<th>Es</th>
</tr>
</thead>
<tbody>
<tr>
<td>sk</td>
<td>10.4</td>
<td>9.1</td>
<td>11.0</td>
</tr>
<tr>
<td>ak</td>
<td>9.6</td>
<td>5.0</td>
<td>3.5</td>
</tr>
</tbody>
</table>

N = 61  62  70
15   35  33

t values: ak = 2.10 (Im-Es); 1.59 (Im-Ee)  t_{crit} = 2.01
sk = 1.20 (Es-Ee)
The conclusion, which, for the time being, must be tentative awaiting further confirmation, is that explanations (of the kind given here) do more to confuse than to help pupils with low IQ, at least when the inclusion of an explanation means the exclusion of some drills.

It is probable that if we started using this kind of grammatical model a little more, in teaching Swedish grammar too, it would be quite feasible to introduce it more regularly. As it is, terminology, (which was kept at a minimum) and the novelty of it all was too much and may have been part of the reason for the not very successful results in Ee and Es. I think the results show clearly, however, that the sk pupils have been able to understand some of it and to profit by it. I also think that if, in a future experiment, the same kind of explanation were used again but introduced a little more slowly and over a longer period, it may very well prove to be successful.

The figures also seem to indicate the correctness of the hypothesis that pupils with low intelligence did not profit from the explanations but that cleverer pupils did. On the other hand the choice of method is less important with bright pupils; they seem to learn what they should whichever way the teacher chooses to introduce the material.

What are the long-term effects of different methods? Do explanations help pupils to remember better? These questions are answered by the figures given in table 16 giving the results on the retention test about one month after the end of the project. No teaching of the grammatical structure under investigation had occurred.

Table 16. Progress II by Method Only, Adjusted Means.

<table>
<thead>
<tr>
<th></th>
<th>Im</th>
<th>Ee</th>
<th>Es</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12.8</td>
<td>10.3</td>
<td>11.2</td>
</tr>
</tbody>
</table>

N = 80 91 98

\[ t \text{ value} = 1.69 \ (\text{Im-Ee}) \]
We notice here that the order between the methods is the same: Im, Es, and Ee. The difference is almost identical and the t value - which is not significant - is also the same. There is one difference, however: all the figures are higher.

A number of explanations can be offered for the fact that the results on the re-test are higher than those on the post-test. First of all, it is possible that the teachers have taught the do-construction themselves in spite of the agreement that they should not do so. Another reason may be this: exactly the same test, was given on all three occasions and the pupils, of course, recognized it. This has two consequences: Many of the pupils learn the test and thus produce better results, others get tired of all the testing and do not even try to show what they know. This is probably particularly true about some of the ak classes and is the most likely explanation for some of the low progress figures in ak. This last effect was particularly strong in the post-test which was given in immediate connection with the project; when the re-test was given a few weeks had gone by and they had forgotten how tired they were of the whole project.

A third explanation is perhaps even more likely and at least partly known from a number of psychological experiments. During the project we dealt quite intensively with one particular grammatical difficulty that the pupils no doubt recognized even if they did not know it very well. During this intensive period they learnt a little about how to use the construction, but it all went by too fast for them to learn it properly. In reading texts and talking in the ordinary class periods immediately after the project the pupils could not help noticing this construction as it cropped up time and time again even when it was not commented on. They thus learnt it better passively and probably without knowing it and whether they liked it or not. This kind of learning is closely related to what in psychology is known as incidental learning.

A problem that according to plans may be investigated by the UME project in Stockholm is that of "lagoma dosen" ("the right-sized dose"), i.e. the problem of how much new learning material should optimally be introduced in one lesson or series of lessons. The tentative result indicated by the above figures and discussion of incidental learning seems to me to indicate that the right dose should be fairly large, so large that the pupil cannot help noticing the structure when he meets it later on.
Now let us see what has happened when we divide the pupils into sk and ak again. The figures in table 17 indicate that certain changes have taken place. In sk Im has gone up ahead of Es with Ee still last. We also see that the differences are somewhat larger with a t value of 1.83 as compared to 1.20 before. In ak, however, Ee is now the "winner", but the differences are small and not significant.

Table 17. Progress II by Method and Course, Adjusted Means.

<table>
<thead>
<tr>
<th></th>
<th>Im</th>
<th>Ee</th>
<th>Es</th>
</tr>
</thead>
<tbody>
<tr>
<td>sk</td>
<td>14.0</td>
<td>10.8</td>
<td>13.2</td>
</tr>
<tr>
<td>ak</td>
<td>8.4</td>
<td>8.6</td>
<td>7.3</td>
</tr>
</tbody>
</table>

N = 65 52 63
15 29 33

* values: ak = .49 (Ee-Es)  
  sk = 1.83 (Im-Ee)

These changes are not very surprising considering that the differences were not significant except for sk where a radical change has taken place. Since only two classes were involved here one reason might be that one teacher - contrary to the agreement - had taught the do-construction in the in-between period. The only other explanation, as far as I can see, would be that the explanations given have come into their own and that the hypothesis that explanations may help most in the long run would be correct. It should be noted perhaps, that in the analysis of variance reported below (p. 81) the Im method is the "winner" at all levels.

Analyses of variance. One of the aims of the project was to find out whether pupils of different ability would benefit by different methods. For this reason their results have been given according to course (sk-ak).
As has been demonstrated above (p. 44f) this division reflects real ability only very roughly. There are also twice as many pupils in sk as in ak. The Im ak classes happened to be small, and so the number of pupils in this "cell" is very low. Furthermore, if there are differences in the suitability of methods for different pupils, it is more likely that these differences will show up in pupils at the extreme ends of the scale than in the in-between pupils. For all these reasons the pupils were divided into three levels of intelligence with roughly the same number of pupils in them (cf p. 74 above). Each of these levels was divided according to method, and we thus obtained a nine-cell system which was statistically processed in analyses of variance as has been described before.

In Progress I the results were as shown in table 18.

<table>
<thead>
<tr>
<th></th>
<th>Im</th>
<th>Ee</th>
<th>Es</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper</td>
<td>13.0</td>
<td>8.8</td>
<td>12.2</td>
<td>1.7</td>
</tr>
<tr>
<td>Middle</td>
<td>8.7</td>
<td>9.5</td>
<td>9.8</td>
<td>.09</td>
</tr>
<tr>
<td>Lower</td>
<td>9.5</td>
<td>4.8</td>
<td>3.9</td>
<td>3.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper</td>
<td>26</td>
<td>24</td>
<td>58</td>
</tr>
<tr>
<td>Middle</td>
<td>30</td>
<td>33</td>
<td>30</td>
</tr>
<tr>
<td>Lower</td>
<td>20</td>
<td>40</td>
<td>35</td>
</tr>
</tbody>
</table>

We find here that in the upper third the Im method is the winner with Es as the runner-up, whereas in the middle group Es is ahead. None of these figures are significant, however. Less surprisingly the Im group is far ahead in the lower group which is largely made up of ak pupils. The differences here (9.5 - 3.9) are almost identical with those given for ak in the analysis of covariance in table 15, and they are also significant. (Cf Rivers's, 1964, p. 120f, comments on the value of explanations for pupils of different ability).
The conclusions drawn above that low-IQ pupils learn more from systematic drills than from explanations but that clever pupils learn with about equal speed irrespective of method used thus seems to be validated and strengthened.

If we turn now to Progress II, the picture that we obtained in the analysis of covariance is changed quite noticeably. In table 19 the Im group is the winner on all levels. The greatest difference is in the lower third where the sk pupils who have "moved down" (N = 32) have worked the change. There is little difference between the methods here which might be taken as an indication that the explanations have "sunk in".

Table 19. Progress II by Method and IQ Level.

<table>
<thead>
<tr>
<th>Level</th>
<th>Im</th>
<th>Es</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper</td>
<td>16.6</td>
<td>13.1</td>
<td>15.3</td>
</tr>
<tr>
<td>Middle</td>
<td>12.9</td>
<td>11.6</td>
<td>12.0</td>
</tr>
<tr>
<td>Lower</td>
<td>8.8</td>
<td>6.8</td>
<td>6.6</td>
</tr>
</tbody>
</table>

The F values show that there are no significant differences, but the tendency, which is small but systematic, is in favour of Im. The assumption that grammatical explanations would give better retention of knowledge once acquired does not seem to have been validated.

The differences between the post- and re-tests are called Progress III and are given in table 20. (The reason why these figures are not simply the difference between Progress I and Progress II is that different pupils took part because of stray absences.) These figures which are explained by incidental learning and the other possible reasons given above are difficult to interpret. The only trend seems to be that the lower the figures were in Progress I, the higher they are here, which leads to the general levelling shown in Progress II. It is interesting to note that the highest figures occur in the two upper levels which results in greater differences between the more gifted children on these levels and those in the Lower third: not only do the cleverer children learn more, they also
remember better and thus increase the difference even without doing anything. This is nothing new, but it is interesting to have it come out so clearly in objective figures.

Table 20. Progress III by Method and IQ Level.

<table>
<thead>
<tr>
<th></th>
<th>Im</th>
<th>Ee</th>
<th>Es</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper</td>
<td>3.9</td>
<td>2.5</td>
<td>3.7</td>
<td>.4</td>
</tr>
<tr>
<td>Middle</td>
<td>3.5</td>
<td>1.2</td>
<td>3.5</td>
<td>1.0</td>
</tr>
<tr>
<td>Lower</td>
<td>1.1</td>
<td>2.8</td>
<td>2.1</td>
<td>.3</td>
</tr>
</tbody>
</table>

Progress for individual classes. To end this section of the report on the results I shall give the progress means for the individual classes. All the pupils taking part in the pre- and post-tests have been included whether they took part in five or more lessons or not. That is why these figures are a little different from the others. We notice here that the best ak class is well ahead of the poorest sk class (9.3 and 4.3 respectively). We also see that especially in the ak Ee classes the two means are quite different and that one even represents a slight regress. The great differences between classes taught by the same method, e.g. classes 7 and 10, both sk Im classes, show the importance of having a sufficient number of classes to counteract extreme values.
### Table 21. Progress I (Difference Pre-Test - Post-Test) Per Class.

<table>
<thead>
<tr>
<th>Class</th>
<th>Course</th>
<th>Method</th>
<th>Progress Mean</th>
<th>Method Mean</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ak</td>
<td>Im</td>
<td>3.2</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>ak</td>
<td>Im</td>
<td>9.3</td>
<td>6.7</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>ak</td>
<td>Ee</td>
<td>-.2</td>
<td>2.5</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>ak</td>
<td>Ee</td>
<td>5.7</td>
<td>2.6</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>ak</td>
<td>Es</td>
<td>2.6</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>ak</td>
<td>Es</td>
<td>1.0</td>
<td>1.8</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>sk</td>
<td>Im</td>
<td>14.1</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>8</td>
<td>sk</td>
<td>Im</td>
<td>10.9</td>
<td></td>
<td>22</td>
</tr>
<tr>
<td>9</td>
<td>sk</td>
<td>Im</td>
<td>11.2</td>
<td></td>
<td>22</td>
</tr>
<tr>
<td>10</td>
<td>sk</td>
<td>Im</td>
<td>4.3</td>
<td>10.5</td>
<td>15</td>
</tr>
<tr>
<td>11</td>
<td>sk</td>
<td>Ee</td>
<td>7.5</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>12</td>
<td>sk</td>
<td>Ee</td>
<td>11.4</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>13</td>
<td>sk</td>
<td>Ee</td>
<td>12.0</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>14</td>
<td>sk</td>
<td>Ee</td>
<td>9.5</td>
<td>9.7</td>
<td>25</td>
</tr>
<tr>
<td>15</td>
<td>sk</td>
<td>Es</td>
<td>12.8</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>16</td>
<td>sk</td>
<td>Es</td>
<td>11.8</td>
<td></td>
<td>22</td>
</tr>
<tr>
<td>17</td>
<td>sk</td>
<td>Es</td>
<td>8.6</td>
<td></td>
<td>26</td>
</tr>
<tr>
<td>18</td>
<td>sk</td>
<td>Es</td>
<td>13.2</td>
<td>11.3</td>
<td>18</td>
</tr>
</tbody>
</table>

**Attitude Tests**

**Student attitudes.** The student attitude test consisted of two parts and the questions were of two kinds, objective with given alternatives and open or active, where the pupils were free to write whatever they liked. The results will here be given in the following order: Interest in English, objective answers, active answers, views on the explanations (E groups only), and then some correlations and means will be given.

The students were asked to give their opinion on how they liked various subjects. The main idea behind this test was to find out how they liked English. The figures for this will be given here. The other subjects are dealt with briefly in appendix E.
Since the four alternatives can be classed as ++, +, -, and -- they have been given numerical values (4-1) and means have been calculated. Both variations and means can be found in table 22 below.

Table 22. Pupil Interest in English for Each Class.

<table>
<thead>
<tr>
<th>Class</th>
<th>Course</th>
<th>Method</th>
<th>++</th>
<th>+</th>
<th>-</th>
<th>--</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ak</td>
<td>Im</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>2</td>
<td>2.6</td>
</tr>
<tr>
<td>2</td>
<td>ak</td>
<td>Im</td>
<td>4</td>
<td>9</td>
<td>3</td>
<td>2</td>
<td>2.8</td>
</tr>
<tr>
<td>3</td>
<td>ak</td>
<td>Ee</td>
<td>8</td>
<td>7</td>
<td>3</td>
<td>4</td>
<td>2.9</td>
</tr>
<tr>
<td>4</td>
<td>ak</td>
<td>Ee</td>
<td>3</td>
<td>7</td>
<td>12</td>
<td>3</td>
<td>2.4</td>
</tr>
<tr>
<td>5</td>
<td>ak</td>
<td>Es</td>
<td>7</td>
<td>12</td>
<td>2</td>
<td>0</td>
<td>3.2</td>
</tr>
<tr>
<td>6</td>
<td>ak</td>
<td>Es</td>
<td>5</td>
<td>13</td>
<td>4</td>
<td>0</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.8</td>
</tr>
<tr>
<td>7</td>
<td>sk</td>
<td>Im</td>
<td>8</td>
<td>13</td>
<td>3</td>
<td>0</td>
<td>3.2</td>
</tr>
<tr>
<td>8</td>
<td>sk</td>
<td>Im</td>
<td>9</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>3.4</td>
</tr>
<tr>
<td>9</td>
<td>sk</td>
<td>Im</td>
<td>1</td>
<td>13</td>
<td>6</td>
<td>1</td>
<td>2.7</td>
</tr>
<tr>
<td>10</td>
<td>sk</td>
<td>Im</td>
<td>6</td>
<td>8</td>
<td>5</td>
<td>0</td>
<td>3.0</td>
</tr>
<tr>
<td>11</td>
<td>sk</td>
<td>Ee</td>
<td>6</td>
<td>14</td>
<td>5</td>
<td>0</td>
<td>3.0</td>
</tr>
<tr>
<td>12</td>
<td>sk</td>
<td>Ee</td>
<td>18</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>3.7</td>
</tr>
<tr>
<td>13</td>
<td>sk</td>
<td>Ee</td>
<td>9</td>
<td>10</td>
<td>7</td>
<td>3</td>
<td>2.9</td>
</tr>
<tr>
<td>14</td>
<td>sk</td>
<td>Ee</td>
<td>9</td>
<td>13</td>
<td>5</td>
<td>0</td>
<td>3.1</td>
</tr>
<tr>
<td>15</td>
<td>sk</td>
<td>Es</td>
<td>3</td>
<td>11</td>
<td>3</td>
<td>0</td>
<td>3.0</td>
</tr>
<tr>
<td>16</td>
<td>sk</td>
<td>Es</td>
<td>7</td>
<td>11</td>
<td>3</td>
<td>1</td>
<td>3.1</td>
</tr>
<tr>
<td>17</td>
<td>sk</td>
<td>Es</td>
<td>11</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>3.5</td>
</tr>
<tr>
<td>18</td>
<td>sk</td>
<td>Es</td>
<td>10</td>
<td>9</td>
<td>2</td>
<td>0</td>
<td>3.4</td>
</tr>
</tbody>
</table>

As can be seen from the above table, 2.4 is the lowest value, indicating that class 4 as a whole considers English to be dull more often than interesting. The other extreme is 3.7 which means that class 12 thinks English is almost always interesting. In ak the figures are lower than in sk; in sk only two classes are below 3.0 which is the + value. On the whole, English seems to be a popular subject in grade 7.
In the test there were nine questions with set alternative answers. Four of these, (numbers 4, 5, 8, and 9) were about the series of lessons as a whole, five (numbers 11, 12, 14, 15, and 16) were about the technical quality and about the three parts of the lessons, oral written and reading-listening; these last five questions only had four alternatives. The results can be seen in table 23.

Table 23. Pupil Attitudes as Measured by the Objective Parts of the Pupil Attitude Test.

<table>
<thead>
<tr>
<th>Question:</th>
<th>Number of answers per alternative:</th>
<th>Number of answers per alternative:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1  2  3  4  5</td>
<td>1  2  3  4  5</td>
</tr>
<tr>
<td>4: learnt less - more</td>
<td>62 97 110 80 7</td>
<td></td>
</tr>
<tr>
<td>5: less fun - more fun</td>
<td>37 68 72 125 53 1</td>
<td></td>
</tr>
<tr>
<td>8: time went slower - faster</td>
<td>27 29 75 128 95 2</td>
<td></td>
</tr>
<tr>
<td>9: more tired - less tired</td>
<td>39 79 151 55 25 7</td>
<td></td>
</tr>
<tr>
<td>11: earphones bad - good</td>
<td>17 78 192 65 - 4</td>
<td></td>
</tr>
<tr>
<td>12: sound bad - good</td>
<td>13 60 210 69 - 4</td>
<td></td>
</tr>
<tr>
<td>14: oral drills bad - good</td>
<td>39 144 138 23 - 12</td>
<td></td>
</tr>
<tr>
<td>15: written drills bad - good</td>
<td>56 166 113 13 - 8</td>
<td></td>
</tr>
<tr>
<td>16: reading texts bad - good</td>
<td>17 68 186 75 - 10</td>
<td></td>
</tr>
</tbody>
</table>

In calculating these values the first alternative in each question has been given the highest (most positive) value, except in number 9, where "less tired" was considered - at least from the pupils' point of view - to be the most positive. The theoretical mean for the first four items is 3.0, and for the last five 2.5.

Values have been calculated for boys and girls separately, and for ak and sk separately, but no significant differences or even trends have been found. Overall means and correlations will be given later. Table 23 shows that the means for questions 4, 5, 8, and 9, are all around the
expected mean of 3.0. These lessons seems to have been slightly more interesting and have gone faster, but the pupils felt tired and they felt that they learnt a little less than otherwise. (The results, however, do not seem to indicate this.) Technically everything seems to have worked well: questions 11 and 12 are both well above the expected mean of 2.5. As to the various parts of the lessons the pupils seem to feel that the reading texts were good, that the oral drills were all right, but that the written drills were not so good; the expected means would be 2.5. The negative reaction to the written drills seems to be more a reaction against writing in general than against these particular drills.

Explanations. In the Ee and Es classes explanations were given three times in each lesson trying to explain what the pupils were doing in the exercises. There was one question in the attitude test, number 13, concerning these explanations. The pupils were instructed to answer this question only if they had had explanations (which also meant having green or red papers, not only white and yellow as the Im groups had). In spite of this two Im classes have answered this question; they rather liked the explanations.

In the table below figures are given for the various alternatives, both for the individual classes and for ak and sk. The explanations were of a new and rather unusual kind, and, as will be seen later, the teachers were rather hesitant, if not negative. The pupils however, as table 24, shows, were all above the expected mean (3.0), and interestingly enough the ak pupils are generally slightly, but not significantly, above the sk pupils.

It should also be noticed that the Es groups are slightly more positive than the Ee groups. Not only do explanations in Swedish seem to help a little more than those in English, but the pupils are also more positive, probably because they feel they understand more.

The first two questions of the questionnaire were of the open kind. The intention was to see what the pupils would write when they were given no cues in the form of alternatives. From the answers it seems obvious that the classes - sometimes probably with the teacher - have quite naturally discussed the project and arrived at certain opinions.
Tabell 24. Pupil Attitudes to the Explanations.

<table>
<thead>
<tr>
<th>Class number:</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 much easier</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>4 somewhat easier</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11</td>
<td>12</td>
<td>11</td>
<td>3</td>
<td>10</td>
<td>8</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>3 no diff.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>9</td>
<td>9</td>
<td>11</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>2 somewhat more difficult</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>1 more difficult</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Ø no answer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

method: Ee | Es
mean: 3.44 | 3.51 | Ee | Es
mean: k   | k
mean: 3.48 | 3.40

N: 91 | 187

Question 2. The pupils were asked to state what was good. The five most common answers are: working with earphones, the music, having no homework, the dialogues, and the fact that they had learnt more than they usually do.

Question 3. The pupils were asked to state what was not good. There are a number of objections which are very common although the number varies between the classes. The two most common are: the earphones hurt and were hot, and it was too fast.
Numbers 6 and 7. These questions followed up number 5 in which the pupils indicated whether they thought the project lessons more interesting or more dull than ordinary lessons; in 6 they listed what made them more interesting, in 7 what made them more dull. Most of the answers take up points that have been given in 2 and 3 above.

Summary of questions 2, 3, 6 and 7: Most things have been given as drawbacks by some pupils, as advantages by others (most often the earphones). The most common complaint is about the tempo. Most of the positive answers are about rather marginal things like the music and about having no homework.

In question 17 the pupils were asked to give any additional comments they liked. In some classes very few things have been written, in other classes they have produced long essays. Here it is most evident that some classes are almost completely positive, others all negative. One class particularly is much more articulate than the others, the pupils having produced various opinions, both positive and negative. The "active" answers are often quite irrelevant. For both positive and negative comments it is obvious that the pupils have been influenced by each other and, possibly (in some cases, definitely) by the teachers. Especially in the answers to question 17 the differences between various classes come out very clearly. Some, mainly ak, write little or nothing, some quite a lot. Some classes, all sk, give fine and varied answers indicating an uncommon degree of maturity. The total pupil attitude, as estimated from the objective answers, has been correlated with a number of other factors. No significant correlations have been found as can be seen from these figures:

Table 25. Attitude Correlations.

<table>
<thead>
<tr>
<th></th>
<th>Post-Test</th>
<th>Grade, English</th>
<th>Grade Total</th>
<th>IQ</th>
<th>Social Group</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude Test</td>
<td>-.09</td>
<td>-.09</td>
<td>-.09</td>
<td>-.05</td>
<td>.11</td>
<td>-.09</td>
</tr>
</tbody>
</table>
These correlations are interesting in showing no connections between attitude and factors like test results, grades, IQ, method or social group.

To summarize pupil attitudes we shall here give the total sums for the objective parts of the attitude test. The impression that most negative answers have positive counterparts counterbalancing them seems to be verified by these figures where the means are close to but slightly above the theoretical means. (standard deviations in brackets).

Table 26. Attitude Means (and Standard Deviations).

<table>
<thead>
<tr>
<th></th>
<th>boys</th>
<th>girls</th>
<th>all</th>
</tr>
</thead>
<tbody>
<tr>
<td>sk</td>
<td>25.74</td>
<td>25.84</td>
<td>25.79</td>
</tr>
<tr>
<td></td>
<td>(4.90)</td>
<td>(5.30)</td>
<td>(5.10)</td>
</tr>
<tr>
<td>ak</td>
<td>25.74</td>
<td>26.29</td>
<td>25.94</td>
</tr>
<tr>
<td></td>
<td>(4.61)</td>
<td>(4.87)</td>
<td>(4.69)</td>
</tr>
<tr>
<td>total</td>
<td>25.74</td>
<td>26.29</td>
<td>25.84</td>
</tr>
<tr>
<td></td>
<td>(4.98)</td>
<td>(4.87)</td>
<td>(4.98)</td>
</tr>
</tbody>
</table>

The theoretical mean is 24.50. As can be seen all groups are above that. Girls in ak are the most positive, ak slightly more positive than sk.

Teacher attitude test. There were 16 teachers whose classes were engaged in the project; two teachers had two classes each. Thirteen of these teachers answered the questionnaire, which consisted of two parts, one with questions on methods in general, one on the project.

All the teachers were well trained and experienced. Asked their opinion on which method would succeed best they answered as follows:

<table>
<thead>
<tr>
<th></th>
<th>Im</th>
<th>Ee</th>
<th>Es</th>
</tr>
</thead>
<tbody>
<tr>
<td>among poor pupils</td>
<td>4</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>among medium pupils</td>
<td>-</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>among good pupils</td>
<td>-</td>
<td>3</td>
<td>7 : as good (1)</td>
</tr>
</tbody>
</table>

It seems that teachers favour the Es method except among the less gifted pupils where explanations are felt to be of little help. They also say that they themselves use Es (5) or a combination of Es and Im (3) in their own teaching. Most of them think that the pupils ought to have a
grammar and they give explanations "quite often" (10) or "sometimes" (3), normally in Swedish. Most of them speak English most of the time (98% 1, 90% 3, 80% 5, 75% 1, 70% 2); only one teacher says he speaks English only 50% of the time. The Authorized Curriculum for Swedish Schools (Läroplan för grundskolan) is felt to be "quite unrealistic" by 2 teachers, "impossible to follow" by 1, "difficult to follow" by 2, and "good" by 4.

The attitudes to the project were positive both before it started and after it ended and on the whole positive as regards the material used in it. The explanations were felt to be somewhat difficult, especially in ak, but one teacher considered them easy to understand. The various drills were generally considered good and to the point, but some feel that they were too difficult and went too fast. The tempo was considered too high by most teachers although opinions vary between "much too fast" and "somewhat fast in some parts". The earphones seem to have worked well in most classes and no serious criticisms have been put forward. Two teachers think the pupils learnt little or nothing (cf p. 22; this seems to indicate the opposite). As to the general teaching effect most teachers feel that the pupils learnt as much as in ordinary lessons. Most teachers have liked the test. Ten teachers feel that the idea behind the project is good and that it should be carried on, a few suggest changes in the explanations and the tempo.

Correlations

A large number of correlations have been calculated. Some concerning the various parts of the test have already been given and discussed. I shall here give some more concerning the main results as related to various other factors.
Table 27. IQ Test Correlations for All Pupils.

<table>
<thead>
<tr>
<th></th>
<th>Verbal Test</th>
<th>Inductive Test</th>
<th>Spatial Test</th>
<th>Total IQ Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test</td>
<td>.58</td>
<td>.50</td>
<td>.30</td>
<td>.60</td>
</tr>
<tr>
<td>Post-Test</td>
<td>.54</td>
<td>.43</td>
<td>.19</td>
<td>.62</td>
</tr>
<tr>
<td>Re-Test</td>
<td>.63</td>
<td>.52</td>
<td>.27</td>
<td>.63</td>
</tr>
<tr>
<td>English</td>
<td>.63</td>
<td>.51</td>
<td>.30</td>
<td>.63</td>
</tr>
<tr>
<td>Grade Total</td>
<td>.69</td>
<td>.58</td>
<td>.39</td>
<td>.73</td>
</tr>
<tr>
<td>Social Group</td>
<td>.33</td>
<td>.36</td>
<td>.20</td>
<td>.40</td>
</tr>
<tr>
<td>Progress I</td>
<td>.26</td>
<td>.25</td>
<td>.06</td>
<td>.25</td>
</tr>
<tr>
<td>Attitude</td>
<td>-.12</td>
<td>-.03</td>
<td>.04</td>
<td>-.05</td>
</tr>
</tbody>
</table>

The IQ tests (table 27 above) indicate that the verbal and inductive tests give the most reliable indication not only of the pupils' expected results in English (as measured by the various tests and by the grades from form 6), but also for overall school success (as measured by the grade total). The spatial test adds very little to the picture. This usefulness of the general IQ test in predicting achievement in foreign languages has been pointed out by Carroll (1953, p. 194).

Intelligence is not, however, so highly correlated with progress as with achievement on the various tests and the grades. This, I think, might be taken as an indication that the brighter students on the whole do better in English, and, of course, in the other school subjects, but that during a short period of experiment the poorer pupils manage to do relatively better. This seems to show that the programmes were neither so difficult that the bad pupils could not learn anything, nor so easy and dull that the best pupils did not learn anything. They have all made about equal progress, that is if method is not taken into consideration.

The correlation Progress - IQ is, however .25, which means that it is low but still significant indicating that the brighter students have, on
the whole, learnt more than the less gifted. The correlation pre-test-IQ is .60; if this had been 1.0, then the above figure for progress-IQ would have been as low, i.e. about ± 0, as progress-pre-test. The fact that the better pupils have gained more than the less bright can be seen from table 15 on page 76 for example, where we see that ak pupils have gained less points even when their lower IQ is taken into account. Since this is so irrespective of what method they were taught by, I do not think this is due only, or even mainly, to the difficulty of the explanations but rather to the well-known fact that IQ is an indication of rate rather than state, rate, that is, of possible development and increase. It also shows that the difference between gifted and non-gifted pupils grows.

Attitudes on the other hand are not at all correlated with IQ. It has been said by many teachers, in the experiment and on many earlier occasions, that this kind of teaching appeals more to the poor students. Others have thought that it was all right for the bright ones but that the less intelligent student would miss the direct contact with the teacher more than the others. Both these opinions seem to be refuted by the results as presented here. Pupil attitude to experiments in general and teaching by machines and earphones does not seem to be at all related to pupil ability.

The main results of the project have been correlated with each other and a number of other figures. The results are as shown in table 28.
Table 28. Correlations of the Main Results.
(figures in brackets are for ak only)

<table>
<thead>
<tr>
<th></th>
<th>Post-Test</th>
<th>Re-Test</th>
<th>Progress I</th>
<th>Progress II</th>
<th>Grade English</th>
<th>Grade Total</th>
<th>Social Group</th>
<th>Attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test</td>
<td>(.78)</td>
<td>(.78)</td>
<td>.04</td>
<td>.01</td>
<td>.77</td>
<td>.72</td>
<td>.45</td>
<td>(-.12)</td>
</tr>
<tr>
<td>Post-Test</td>
<td></td>
<td>.94</td>
<td>(.37)</td>
<td>(.03)</td>
<td>.81</td>
<td>.80</td>
<td>.48</td>
<td>-.09</td>
</tr>
<tr>
<td>Re-Test</td>
<td>(.07)</td>
<td>(.33)</td>
<td>(.55)</td>
<td>.29</td>
<td>.37</td>
<td>.19</td>
<td>(.25)</td>
<td></td>
</tr>
<tr>
<td>Progress I</td>
<td></td>
<td></td>
<td>(.55)</td>
<td>.39</td>
<td>.39</td>
<td>-.20</td>
<td>(.27)</td>
<td></td>
</tr>
<tr>
<td>Progress II</td>
<td></td>
<td></td>
<td></td>
<td>.31</td>
<td></td>
<td>.48</td>
<td>-.09</td>
<td></td>
</tr>
<tr>
<td>Grade English</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.92</td>
<td>.45</td>
<td>-.09</td>
<td></td>
</tr>
<tr>
<td>Grade Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.48</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>Social Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The pre-test correlations with progress are low. This means that the clever and the poor pupils have made progress to about the same extent. The pre-test seems to have measured well what the pupils know: the correlation with grade in English is .77. There is a high correlation with social group which I will comment on later, but no correlation with attitude.

Progress correlated well with grades, both in English and in general. Since grades and IQ correlate very highly (.73; see table 27 above), this is not surprising. There is low correlation between progress and attitude, (.25 for ak) which indicates that the pupils (at least in ak) have tended to be a little more positive in their attitudes if they have made progress than
if they have not made any.

The social group correlates significantly with intelligence (see table 27 above), a fact not in itself surprising (cf. Anastasi, 1958, p. 517), and with grades (which are, of course, highly correlated with intelligence) and with achievement in English (which in its turn is correlated with IQ and - hopefully - with grades). The only factor which does not correlate with social group (and with hardly any other factors either) is attitude. This is interesting since it indicates that poor pupils have, on the whole, been as positive - or negative - as the bright ones.

We have also correlated the scores used as covariates with the figures used as criteria in the analyses of covariance. They are given in table 29.

Table 29. Correlations for the Covariates (for all pupils).

<table>
<thead>
<tr>
<th></th>
<th>Progress I</th>
<th>Progress II</th>
</tr>
</thead>
<tbody>
<tr>
<td>IQ + Grades</td>
<td>.34</td>
<td>.35</td>
</tr>
<tr>
<td>Post-Test</td>
<td>.90</td>
<td>.87</td>
</tr>
</tbody>
</table>

To arrive at good and reliable results in an analysis of covariance the covariate and the criterion should correlate. As the figures above show, they do correlate significantly. The pre-test scores correlate higher than the IQ-grade scores do, however, which indicates that analyses of covariance with progress as criterion and pre-test as covariate might have been interesting and useful.

Sources of Errors

Educational research is no doubt much more difficult in many respects than, say, scientific research, which can be carried out in laboratories. There are so many factors that are next to impossible to keep under control. This means that in spite of all efforts to the contrary a number of possible
sources of errors must be taken into account.

1. The uncertainty of pupil background is probably the most important error. It is difficult to find out what teachers the pupils had in previous years of English and still more difficult to establish how these teachers taught. Nor do we know what techniques the pupils themselves used in acquiring the skills, e.g., studying at home, help from parents etc. (cf Carroll, 1966, p. 103).

2. The earphones were of varying quality and this may have influenced the results in some classes just as the fact that one of the assistants was not very good and managed to irritate teachers and pupils in "his" classes,

3. A number of minor possibilities: The selection of classes may perhaps be criticized but does not seem to have had negative effects. The teachers may have influenced their classes in different directions and what negative effects this may have led to is difficult to establish. The unrealistic situation with taped lessons has probably influenced the learning and was possibly more detrimental in sk than in ak but it should have the same effect across methods and is thus not detrimental to the main aim of the project. The unusualness of the explanations, as has been pointed out, may certainly have had effects on the learning, but this is hardly a source of error, however, but rather a factor to keep in mind in interpreting the results; they were part of the experiment. The speed, which admittedly was too high, has caused negative reactions from both teachers and pupils. Since the same recordings were used in all classes and methods this can hardly have influenced the results except that all figures may be a little lower than they would otherwise have been.

Limitations of the Results.

The results as they are refer to the teaching of English grammar in the 7th form, and more exactly to the teaching of the do-construction. This means that no conclusions concerning the teaching of, say French or German should be drawn, and that great care should be taken in drawing inferences concerning English at other levels, and, of course, other parts of the teaching of English, e.g., vocabulary. Nor should conclusions concerning the teaching of grown-ups be drawn too easily. Cf my model on page 6, where different "input values" will certainly give different "outputs".
5. DISCUSSION, CONCLUSIONS AND IMPLICATIONS

Most experiments in the field of modern foreign language teaching that have been reported and that have been discussed earlier in this thesis seem to have arrived at very nearly the same result: it is difficult to find and prove differences between different teaching strategies. There are so many other factors that influence the results that clear-cut indications one way or another are difficult to establish.

In the present study the implicit method without any explanations in either English or Swedish but with strictly systematized drills has succeeded best whenever one method is significantly ahead of the others. This can be due either to the inherent merit of the Im method, or to the unusual explanations given in the E groups. In most cases there are no significant differences at all. One conclusion which has been drawn and which seems valid is that the Im method is quite realistic and can be used with great advantage.

An interesting fact in this kind of research is that the so-called null hypothesis, which says that there is no difference between the methods to be tested (and therefore no such differences should be arrived at), is impossible to prove. If there are no differences this does not prove the correctness of the hypothesis. There may still be differences between the treatment groups although the experiment was not sensitive enough to detect them. The null hypothesis can only be proved by circumstantial evidence, i.e., by a series of experiments which all give the same result.

What the present results imply is that the project needs to be carried on along similar lines with modifications mainly in the amount and phrasing of the explanations. As it was, terminology and the novelty of the transformational approach may have been part of the reason for the comparatively poor results in Ee and Es. There is no doubt that at least the sk pupils were able to profit by the explanations, and if these are modified and introduced a little slower, it seems likely that the result will be different. I definitely do not think that the project has proved the basic hypothesis of the positive effect of explanations to be wrong or impracticable. More research with modified methods is needed before our preliminary results can be considered at all definite.
There is a tendency, for instance, in the E groups which would seem to mean that explanations seem to help the brighter pupils more than the less gifted ones, and also that explanations in Swedish are better than those given in English. This is probably influenced, however, by whether the pupils are used to having things explained to them in English or not. A longer experiment, preferably over a number of years, might thus give different results from those arrived at here.

It should also be pointed out that the pupils had all studied the deconstruction previously in their first three years of English, and it is impossible to check to what extent there had been explanations then and how well they had come back to them when doing the exercises.
SUMMARY

This report covers the first part project out of three in the first-year part of the GUME project planned to continue for at least two years. The results are thus only tentative.

Three different methods were used: an implicit (Im) in which the pupils practised the do-construction in oral and written drills only and completely without explanations or theoretical comment, and two explicit, one all in English (Ee) and one in Swedish (Es) where comparisons with Swedish were also made. Apart from the explanations the lessons in all three groups were identical.

The pupils were also grouped according to ability as measured by an IQ test. It then turned out that in the low intelligence groups the Im method was the best one. Among the more intelligent pupils the picture is not so clear and no significant differences were found. If explanations are to be given they should be given in Swedish, however. The explanations given in the project were of a transformational kind and this may be one reason why the Ee and Es groups scored so low.

The pupils' attitudes to the project were moderately positive.

The plans are to carry on the experiment in a modified form for another year to see if the tendencies will be the same.
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IMPLICIT AND EXPLICIT –

An Experiment in Applied Psycholinguistics,
Assessing Different Methods in Teaching Grammatical Structures in English as a Foreign Language

by

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Engelska institutionen

Gothenburg, Sweden, June, 1969
List of Appendices:

Appendix A: The complete manuscript for the explanations given in the explicit groups, including manuscript for the slides shown in these groups.

Appendix B: The achievement test given as pre-, post-, and re-test. Notice that the text recorded for part D was identical with the text in part J. The test took 37 minutes.

Appendix C: The pupil attitude test administered at the end of the project immediately after the post-test.

Appendix D: The teacher attitude test, consisting of two parts and given at the same time as the pupil attitude test.

Appendix E: Short description of and comment on the outcome of the pupil attitude test concerning interest in all compulsory subjects.

Appendix F: Pupils' Lesson Materials, i.e. the booklets that the pupils were given at the beginning of each lesson and with which they worked. This appendix is in the form of a separate booklet.

Anyone interested in the complete recording manuscript for the oral drills is asked to contact the author. These were taken from a series of language laboratory programmes called TL 10:1 - TL 15:1 and there is a limited supply of these manuscripts left.
Appendix A

RECORDING MANUSCRIPTS FOR THE EXPLANATIONS GIVEN IN THE EXPLICIT GROUPS
NB: In each lesson three explanations were given. For details concerning exact recorded length and position in lessons of the explanations, see the report. In the first explanations of lessons 2 through 6 references are made to slides shown in the classes while the pupils were listening; what these pictures showed can be seen from pages A 41-45 at the end of this appendix. For lesson materials referred to in explanations two and three, see separate appendix of Pupils’ Lesson Materials. Notice that the pupils heard the explanations given in this appendix, but they did not read them.

Ee = Explicit group, explanations in English
Es = Explicit group, explanations in Swedish

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<td>Lesson 4</td>
<td></td>
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<td>Ee: A</td>
<td>A 2</td>
<td>Ee: A</td>
<td>A 23</td>
</tr>
<tr>
<td>B</td>
<td>A 3</td>
<td>B</td>
<td>A 24</td>
</tr>
<tr>
<td>C</td>
<td>A 4</td>
<td>C</td>
<td>A 25</td>
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<td>A 5-6</td>
<td>Es: A</td>
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<tr>
<td>B</td>
<td>A 7</td>
<td>B</td>
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</tr>
<tr>
<td>C</td>
<td>A 8</td>
<td>C</td>
<td>A 28</td>
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<td></td>
<td>Lesson 5</td>
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<td>Ee: A</td>
<td>A 9</td>
<td>Ee: A</td>
<td>A 29</td>
</tr>
<tr>
<td>B</td>
<td>A 10</td>
<td>B</td>
<td>A 30</td>
</tr>
<tr>
<td>C</td>
<td>A 11</td>
<td>C</td>
<td>A 31</td>
</tr>
<tr>
<td>Es: A</td>
<td>A 12</td>
<td>Es: A</td>
<td>A 32</td>
</tr>
<tr>
<td>B</td>
<td>A 13</td>
<td>B</td>
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</tr>
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<td>C</td>
<td>A 14</td>
<td>C</td>
<td>A 34</td>
</tr>
<tr>
<td>Lesson 3</td>
<td></td>
<td>Lektion 6</td>
<td></td>
</tr>
<tr>
<td>Ee: A</td>
<td>A 15</td>
<td>Ee: A</td>
<td>A 35</td>
</tr>
<tr>
<td>B</td>
<td>A 16-17</td>
<td>B</td>
<td>A 36</td>
</tr>
<tr>
<td>C</td>
<td>A 18</td>
<td>C</td>
<td>A 37</td>
</tr>
<tr>
<td>Es: A</td>
<td>A 19</td>
<td>Es: A</td>
<td>A 38</td>
</tr>
<tr>
<td>B</td>
<td>A 20-21</td>
<td>B</td>
<td>A 39</td>
</tr>
<tr>
<td>C</td>
<td>A 22</td>
<td>C</td>
<td>A 40</td>
</tr>
</tbody>
</table>
Lesson 1
Group: Ee
A

Now I want you to look up your papers. The first green page there called "sidan A". Now we shall try to see how English people do when they answer questions in English. It is quite easy really, but we shall look at it anyhow, so that you know it really well when we go on to more difficult things next time. When you answer "yes" to a question, you normally repeat the verb of the question, so if I ask you "Can I do it?", then you would say "Yes, you can". If you hear the answer only, you can almost guess what the question must have been. Look at number two here. If somebody answers "Yes, you must!", then you can know that somebody else asked him "Must I" and in this case here "Must I do it?". Now write the answer of the next question. "Shall we do it?" - "Yes, we -", good, of course you must say "yes, we shall." And if the answer is "Yes, he will", then the question must of course be "Will he do it?". The only words that are changed are "am" and "are" when you speak about yourself or to one other person. Then you say - as you can see here - "Are you ill? - Yes, I am. - Am I tall? - Yes, you are." "Is" and "has" are of course repeated. Then we come to questions beginning with "do" and "does". These words are also repeated, so you say "Yes, I do" and in the next one of course "Yes, she does". The question of the next one must be, well, what do you say - good, "Did they see it?". - Now, if you want to answer no, you just add not. to all these little verbs and say "No, I can't, I don't, he doesn't". But then if you want to say a little more and give the right answer also, then you must repeat the full verb of the question, verbs like "speak, like, sing, look". Now look at the questions and answers and say after me: "Do you like coffee? - No, I don't, but I like tea. - Does he sing pop songs? - No, he doesn't, but he sings folk songs. - Did they look at it? - No, they didn't, but they looked at the book." Notice that you must be careful to get the "s" and the "e-d" in the right place as in "Does he sing?" - "No, he doesn't but he sings" - "Did they look?" - "No, they didn't, but they looked". - Fine, now we'll go on with our little exercise and we'll see if you remember what I have just told you so that you can answer correctly.
Now turn the page all of you and look up the green paper called "sidan 1 A". Look at the examples there. We’ll read them together and you write the words that I have left out. ‘Can I do it?’ and the answer ‘Yes, you must’. The question must be, well -- ‘Must I do it?’ Now answer the next one and write it out: ‘Are you ill?’ -- ‘Yes, I am.’ And what must the next question be as the answer is ‘Yes, you are’? That’s right, it must be ‘Am I tall?’ So, the only verbs that are changed are "am" and "are" when you speak about yourself or to one person. And then we have two questions with "do" and "does". You answer them, please: ‘Do you like milk?’ -- ‘Yes, I do’. And ‘Does he love Mary?’ -- ‘Yes, he does’. Good. And then we’ll look at the three questions to which you answer "no", and then go on to tell the person who asks the question what the right answer is. Notice that in the first short answer you repeat the little verb "do, does, did" as we have done before, but then when you say the right thing, you must use the full verbs "like, speak, look". Notice the "s" and "e-d" that you must put on the end of these verbs here. Will you say after me please: ‘Do you like coffee?’ ‘No, I don’t, but I like tea.’ ‘Does she speak French?’ ‘No, she doesn’t, but she speaks English.’ ‘Did they look at the boy?’ ‘No, they didn’t, but they looked at the girl.’ Before we leave this, you can underline in the questions "do, does, did" and the full verbs "like, speak, look". And then in the answers, "don’t, doesn’t, didn’t" and the three verbs "like, speaks, looked". That’s fine, now you can go on writing, and try to remember what we have talked about here.
Now, will you stop for a minute. Turn the page and look up the green paper. There you find the beginning of this same story again. We shall look at some of the sentences. I have underlined them for you, so that you can find them quite easily. When the actor says "Yes, I am" you can't understand what he means, if you haven't heard what the agent said before. So we have to go back and look at what the agent said. Follow the arrow and you come to "you're looking for work". So "Yes, I am" means "Yes, I am looking for work". Now I want you to write that on the line to the right there on your papers. And then when the actor says "Yes, you did" we have to go back again and see, and then we find that the agent has said "Did we explain", so "Yes, you did" means - listen - "Yes, you explained". Now write that on the line to the right on your paper. Then he says "Yes, it does". Can you tell me now what you must write on the line here? - Good, of course it means "Yes, it sounds all right". And then, what does "Yes, I can" mean? - Good, it means "Yes, I can ride a horse". And the next "Yes, I can"? - That's right: "Yes, I can swim". And finally, what does "Yes, I did" mean? - That's correct: "Yes, I went to a training school". And now I want you to go on reading the story. Turn back to the white page again.
Group: Es
A

med att få det i rätt form, dvs att lägga till ett "s" eller "ed" där det passar. Läs meningarna efter mig: "Do you like coffee? - No, I don’t, but I like tea. - Does he sing pop songs? - No, he doesn’t, but he sings folk songs. - Did they look at the newspaper? - No, they didn’t, but they looked at the book." - Och nu skall vi återgå till våra övningar, och du kan kanske försöka komma ihåg vad vi nu sagt, så kanske du klarar exemplen som kommer bättre.
Nu skall du ta och göra en liten paus och i stället slå upp det röda bladet som kallas "sidan 1A". Här skall vi ta en liten titt på ett antal meningar som liknar dem vi såg på för en stund sedan. Som du ser upprepar man alltså det s k hjälpverbet i svaret både på engelska och på svenska. Har man frågan är det lätt att veta hur svaret skall låta, och har man bara svaret, är det lätt att veta hur frågan såg ut. Den enda skillnaden här mellan engelskan och svenskan är att vi har ett extra litet "det" i svaret. Det heter alltså "Shall we do it? Yes, we shall." I följande exempel kan du själv fylla i frågan. Svaret är ju "Yes, he will", så frågan måste vara - Will he do it?" - Tag och fyll i de följande två, så kan vi läsa dem tillsammans sedan. - "Has he seen it?" - "Yes, he has". - "Have they done it?" - "Yes, they have." - Litet svårare blir det, när man svarar nej på frågan och sedan fortsätter med att tala om det rätta svaret. Se först på de svenska meningarna. Vi säger först "Nej, det gör han inte; nej, det gjorde de inte" och sedan upprepar vi huvudverbet: "men han tycker om öl, men de möttes på tisdag, men de talar engelska". På engelska gör man på exakt samma sätt. Se på de meningarna och säg efter mig. "Does he like milk?" "No, he doesn't, but he likes beer." Lägg märke till det där "s"-et, som alltså svarat flyttar sig över från "do" till "like". Och så tar vi nästa, "Did they meet on Monday?" "No, they didn't, but they met on Tuesday." "Do English people speak French?" "No, they don't, but they speak English." Tag nu en liten titt på alla de understrukna orden: "Does - like - doesn't - likes - did - like - didn't - met - do - speak - don't - speak", så minns du kanske det här när du fortsätter skriva. Gå alltså tillbaka till det vita papperet där du höll på och fortsätt där.
Lesson 2
Group: Ee

A

Now we shall try to see what you really do when you ask a question in English. But first let us start with four English sentences (1). - Oh no, that can't be right, you can't say that in English. We must add something. (2). - That looks better. Let's read these sentences: He looks, He can look. But then, no that is still not correct. We must add a little more (3) - like that. Now: He looks, He can look, He has looked, He is looking. They are four correct English sentences. But now we'll make them into questions. Let us start with the question marks (4) like that. We'll put one in front of the sentences too. Now we must change something because these are not correct questions. We'll put the red words in a frame (5) because it's with them that we must do something. We must move them to the beginning of the sentences (6) as the arrows show us. In English the black words can never change places. But now there is no red word in the first sentence, so we'll move the $s$ first (7) as this arrow shows and then it looks like this (8). Now let us move the words in the frame to the beginning of the sentences, where the question mark is, like this (9). Now we have three fine sentences, three questions: Can he look, Has he looked, Is he looking. But the first one is no good, you can't say that: $s$ he look. What we must do now is to add something to the $s$. Let us do as English people always do, let's take the word do. We'll have to spell it d- e (10) and what we get is this: Does he look. Now we'll read these sentences together: Does he look, Can he look, Has he looked, Is he looking. Good.
Now turn the page all of you and look up the green paper called "sidan 4 A". We'll see if you remember what we said a little while ago when we looked at the pictures. When you make sentences into questions you add a question mark after it, but then you must also move the little verbs "can, has, is" to the beginning of the sentence just as you can see on your papers. The two words "he" and "look" must stay where they are, so you get the three questions 'Can he look at it?, Has he looked at it?, Is he looking at it?'. But the full verbs "looks, sees, eats, drinks, takes" must stay where they are as we have said before. It's only the "s" that moves, and it goes into the empty frame to the same place as "can, has, is", and then this "s" moves to the beginning as these little verbs. And as you can't start a sentence or question with just an "s", we'll have to put it together with the verb do, and so we get the word "does" which we spell "do-e-s". This little verb "do" takes the place of the little verbs "can, has, is", and we can say that in English when you ask a question you must put a little verb like "can, has, is" first, and if there is no such word, then you must add the word "do!" because words like "look, see, eat" and so on can't move to the beginning. - Now look at the last two lines of the page. This is the same thing. And you can see here that the "s" of "sees" goes to "do" and makes the word "does" and therefore you can't have an "s" on the word "see" in the question, so you say "Does Peter see his sister?". And now go back to page 4 again and go on writing.
Now, will you stop for a minute and turn to the green page. There you find a little bit of the same story. It’s the woman and the solicitor talking to each other. I have underlined some of the questions here. We have practised quite a bit making sentences into questions. Here we’ll do it the other way. Look at the first question: "Does he grunt in a special way?" What would "Does he grunt" be as an ordinary sentence? - That’s right, "He grunts". I want you to write that on the line there, under the question. This is what you could say in an answer, for example: "Does he grunt?" - "Yes, he grunts". ///// Now look at the next question: "Does he sound hurtful?" What must you write there? - Good, you should write "He sounds hurtful". ///// And then the next one: "What time does your train go?" There you must write, well - "Your train goes". ///// And then "Does he have to do any more than that?" - "He has to do more". ///// And finally: "What does he say?" - where you write - well - "He says something." - That’s fine, now you can go back to the white paper and go on reading the story.
Group: Es
A

Och så tar vi och stannar lite och slår upp det röda bladet, som är märkt "elevblad 2" och tittar på det som står där. Det är en bit av historien du just läser, och det är alltså "a woman" och "a solicitor" som pratar. Här är några frågor understrukna och du skall skriva ut vad man skulle säga som vanligt påstående om man t ex svarade med en hel mening. I första exemplet står det "Does he grunt in a special way?" och där skall du alltså skriva "he grunts" precis som man skulle kunna säga i ett långt svar, "Yes, he grunts in a special way". //// /// Och i nästa exempel: "Does he sound hurtful?", där vi alltså skriver "He sounds hurtful". //// /// Och så tar vi nästa: "What time does your train go?". Där skall vi alltså skriva - "Your train goes". //// /// De sista två kanske vi kan säga utan att skriva dem. "Does he have to do any more than that?" blir då - "He has to do more" och det sista exemplet "What does he say?" blir - "He says something". - Det är bra. Nu kan du återgå till de vita papperen och läsa vidare.
Lesson 3
Group: Ee

A

Now we shall see again how you do in English when you ask questions, but today we shall talk about sentences telling us what happened yesterday or a year ago. Let's look (1). Oh, here are those four sentences again. But you can't say that, can you? Let's add something again (2). That's better: He looked, He could look. But then, no, we'll have to add more (3). Now: He looked, He could look, He had looked, He was looking. That's fine. And now we'll make questions (4) and we add question marks as we did last time. And again something, in fact exactly the same thing as last time, will happen to the red words, so let's put them in a frame again (5). When we ask questions, the red words go to the beginning of the sentences, look at the arrows (6). But again, the first sentence is no good, there is nothing in the frame there. Let's move the -e-d into it (7) as this arrow shows, like this (8). And now we must move it all to the front (9) and we get three, but not four fine sentences: Could he look, Had he looked, Was he looking. But the first one looks strange. You can't say that: *ed he look*. We'll do as we did last time, we'll add "do" (10) like this, *do-ed* in English. Let us change it a little bit (11) like this. And now we have four correct questions. Say after me please: Did he look, Could he look, Had he looked, Was he looking. Good.
And now I want you to stop writing for a minute. Turn the page and look at the first green paper called "sidan 5 A". We'll look at a few sentences to see if you know what you must do now when you ask questions in English. As you see there is no problem in the first three sentences. It's just the same as last time: you just take the little verbs "could, had was" and move them to the beginning of the sentences, and so you get the three questions 'Could he look?, Had he looked?, Was he looking?'. In the other two sentences you can't start - as we said last time - with words like "look" and "ask". What we have to do is to add something between "he" and "look", so we'll move the "e-d" just as we moved the "s" last time, and then we move this "ed" to the beginning of the sentence just as we do with "could, had was" and when we add "do" we get the word "did". Since the "e-d" of "looked" and "asked" has moved over to "do" we must say "look, ask" in the questions. 'Did he look at her?' 'Did he ask her something?'. That's fine. You noticed now, didn't you, that we say 'He looked' but 'Did he look?' and 'He asked' but 'Did he ask?'. Now turn the page and look at "Sidan 5 B". In English we say "I like it now" but "I liked it yesterday". So you add "e-d" when you want to say that something happened yesterday, a week ago or last year. You don't always spell it that way. As you can see here, when "like" and "ed" are made into one word, one "e" is dropped. Look at the second sentence. There you can see that instead of "say" and "ed" you spell it "s-a-i-d" but it is the same as "say" + "ed" as I have written over it. "Do+ed" as you already know is "did". "Send+ed" becomes "sent". And then notice the last three words: "see+ed" is "saw", "drink+ed" is "drank" and "take+ed" is "took". This is important when we make questions. As you remember the "ed" goes to the beginning and makes the word "did", so that when you ask about something that happened yesterday you always start with "did", but then the full verb must be "like, say, do, send, see, drink, take". Now I'll read the sentences th the left and the questions. Listen carefully 'He liked her new hat.' 'Did he like her new hat?' 'He did his homework'. 'He sent her a letter.' 'Did he send her a letter?' 'I saw him yesterday.' 'Did I see him yesterday?' 'He drank his tea.' 'Did he drink his tea?'
He took his books. 'Did he take his books?' And now finally we'll look at the two last sentences of the page. When you have a sentence with the word "do" or "did" in it, notice what happens when it becomes a question. The "e-d" goes to the beginning where we put in a new "do" which then becomes "did" and of the first word there is just "do" left, so we say 'He did his homework' and 'Did he dod his homework?' And now you can go back to page 4 and go on writting.
Now I want you to stop reading a minute. Look up the green paper called "elevblad 2" and look at the sentence there. If we have a sentence like "You said something" you can make that into a question in two ways. First as we have done before. Then you put a "did" in front and get "Did you say something?". But then you can make a question out of "something" also and ask about that too. Then you put it at the beginning before "did" and then you must change it and say "what", and now you get the sentence to the right on your paper: 'What did you say?' That's quite easy really. Look at the next one. "He did something then" becomes "Did he do something then?" and then you can put "something" first and say "What did he do then?".

And look at the next one. "He hit you somewhere" becomes first "Did he hit you somewhere?" and then if you don't know where he hit her but want to know "Where did he hit you?". Now I want you to write in the following four sentences. "He saw me there" first becomes "Did he see me there?" - Write that, please. ///// And then you want to ask about where it was. Now you put "there" first, but then you must spell it with "w-h" and so you get "Where did he see me?" ///// And the next one. "He gave her something". Can you write the two questions yourself? - Right, it must be "Did he give her something?" and "What did he give her?" ///// And the next one. "I did it then" becomes first - "Did I do it then?" and then "When did I do it?" ///// And the last one. "You saw somebody" becomes "Did you see somebody?" and "Who did you see?". - ///// - And now before we leave this, notice the two sentences with the verb "do" in them. "He does it" as a question becomes "Does he do it?" and "He did it" becomes "Did he do it?". - Now go back to the white papers and go on reading your story.
Nu skall vi göra en liten paus i skrivandet och slå upp det röda blad som är märkt "sidan 5 A". Vi skall hastigt repetera vad vi sade för en stund sedan om hur man gör, när man på engelska skall göra frågan som gäller förfluten tid, sådant som hände igår eller för en vecka sedan. I de tre första exemplen är det lika enkelt på engelska som på svenska och som det var förra gången. Vi har ett hjälpverb och det flyttas helt enkelt, så att det kommer att stå först i meningen. Vi får då fram frågorna på engelska - såg efter mig: "Could he look? - Had he looked? - Was he looking?" - Men sedan blir det litet svårare. På engelska är det bara hjälpverben som kan flyttas. Orden "he" och "look" kan alltså inte byta plats, så som "han" och "tittade" gör på svenska, när vi gör frågan "Tittade han?". Vi måste alltså rita ut en ram som står för hjälpverbet, som inte finns. Det flyttar vi också ändelsen "e-d" precis som vi gjorde med "s"-et förra gången, och eftersom det nu skall bli en fråga flyttas detta till meningen början där "do'plus "ed" blir till "did". Eftersom det "ed" som fanns i meningen "He looked" nu har flyttat ihop med "do" och blivit "did", så måste man alltså säga "Did he look?" Man kan ju inte ha med "ed" två gånger i samma mening. - Nu skall vi ta och vända blad och titta på nästa röda papper. Det kallas "sidan 5 B". Här har vi sju meningar, som vi skall göra om till frågor. Här har vi rätt många s k oregelbundna verb. När man på svenska skall tala om förfluten tid så säger man vanligen "tittade, talade, hörde" osv, men ibland har man s k oregelbundna former. Man säger inte "sede" utan "såg", inte"drickde" utan"drack", inte "agde" utan "tog". På samma sätt är det på engelska. Man säger, om vi läser uppifrån, "liked, said, did, sent, saw, drank, took". Det första är ju nästan helt regelbundet, det är bara i stavningen som man tappar ett "e", men sedan blir det svårare. Ovanför de här orden har jag skrivit hur man kan tänka sig att de skulle heta, om de hade varit regelbundna. När man nu gör en fråga, skall ju det där lilla "ed" vandra fram och slå sig ihop med ett "do" för att bilda ordet "did", som ju står först i frågor i förfluten tid. Men om vi nu tar bort "ed", så ser du att det bara blir resten kvar, alltså om vi läser uppifrån, "like, say, do, send, see, drink, take". Vi sade ju för ett ögonblick sedan att man inte uttrycker förfluten tid med mer än ett verb i varje me-
ning och eftersom nu "ed" gått ihop med "do" och blivit "did" i meningens början, så får vi använda de här små orden i frågan, dem som vi ju känner igen från presens eller nutid - "I say something now - I see something now" - och så får vi fram frågorna. Vi tar och läser dem tillsammans. "She liked the book. - Did she like the book? - He said something. - Did he say something? - He did it. - Did he do it? - She sent him a book. - Did she send him a book? - I saw him there. - Did I see him there? - He drank his tea. - Did he drink his tea? - He took his books. - Did he take his books?" - Lägg särskilt märke till den tredje meningen, där vi redan från början har ett "did" och där vi alltså får frågan "Did he do it?" - Nu skall du återgå till skrivandet. Slå upp det vita papperet där du höll på och fortsätt skriva.
Nu skall vi ta och göra ett litet uppehåll och titta på det röda papperet som kallas "elevblad 2". Om man har en mening som den första "You said something, så kan man göra två frågor av den. Den första blir som vi lärt oss "Did you say something?". Men sedan kan vi också fråga vad det där "någonting" var för något, och vi får då börja med det, och då skall det ändras och blir till "What" och vi får alltså fram frågan "What did you say?" Vi kan ju ju göra likadant på svenska, där ju de tre meningarna heter "Du sade någonting, Sade du någonting?, Vad sade du?" Om vi gör likadant i nästa mening så får vi fram: "He did something then, Did he do something then?, What did he do then?". Och i tredje raden "He hit you somewhere, Did he hit you somewhere?, Where did he hit you?", Man sätter alltså in det där frågande ordet "What, Where" framför "do, does, did", men i övrigt ser frågan ut likadant som annars. De här tre meningarna var hämtade från vår text. Nu skall vi ta och försöka göra fyra egna meningar av den här typen. Där står först "He saw me there". Det blir som fråga förstås - "Did he see me there?" och om vi gör om "there" till frågeordet "where", så blir det - "Where did he see me?" Ta och skriv ur de två meningarna.

Och så tar vi och tittar på nästa exempel. "He gave her something" måste då bli först - just det, - "Did he give her something?" och sedan - bra - "What did he give her?" Och så tar vi det tredje exemplet. "I did it then" blir då - "Did I do it then?" och - "When did I do it?" Och så det sista, "You saw somebody", som blir - "Did you see somebody?" och till sist när vi gör "somebody" frågande, dvs till "who", så får vi fram "Who did you see?". Jämför på svenska: "Du såg någon, Såg du någon? och Vem såg du?" - Till sist skall vi ta och titta på de sista två raderna på papperet. Om den första meningens innehåller verbet "do", som ju också har formerna "does" och "did", så måste man ju i alla fall i frågan ha med ett ytterligare "do", så frågorna blir alltså: "Does he do it?" och "Did he do it?" - Nu kan du återgå till de vita papperen och läsningen.
Lesson 4

Group: Ee

A

Today we shall learn a little more about how to ask questions. We’ll start with our four sentences (1), and they are still not correct, so we’ll add what we have added before (2) and then they are all right: We look, we can look, we have looked, we are looking. And when we make them into questions we do as before (3), we add the question marks, the frame and the arrows. But as always, there is trouble in the first sentence. There is nothing in the frame, but now there is nothing outside it either, so we’ll have to add a ring which means nothing (4) and move it into the frame (5). This ring shows us that what we do now is exactly the same thing as we have done before. And now we’ll make the questions (6) like this. As always we get three correct questions: Can we look, have we looked, are we looking. But the first one is no question: we look. And we have this ring. Let’s do as we have done before, let’s put in Do there (7) and do plus nothing is do of course, so we get four questions: Do we look, Can we look, Have we looked, Are we looking. Good. Now remember this when you go on with the exercises.
And now, please turn the page and look at the green paper called "Sidan 7 A". Here are a few more sentences that we shall make into questions. The first four are quite easy as usual. You just take the little verbs "can, have, were, am" and put them at the beginning of the sentences and so get the questions "Can we do it?, Have you looked at it?, Were they there? Am I a teacher?. In the next four sentences, however, the full verbs "speak, live, drink, play" must stay where they are. In the other lessons we have moved an "s" and and "e-d" from these verbs to the empty frame and then as the little to the beginning. Now there is nothing after them, so we'll have to move an empty little ring to the beginning, and of course add "do" as we always do. And of course "do" plus nothing becomes just "do". So in a way these are easier than the questions we have practised before. Let's read these questions now. 'I speak English well. 'Do I speak English well?' 'We live in Sweden. 'Do we live in Sweden?' 'You drink milk every day. 'Do you drink milk every day?' 'The Beatles play pop. 'Do the Beatles play pop?' - Now try to remember this when you go on writing. Turn back to page 7 and go on there.
Now stop reading for a minute and look at the green paper, called "elevblad 2". Here you have the beginning of the dialogue again, but here I have underlined five questions. And in the questions I have put one or two words in a frame. You can make a new question now in which you ask about this word, questions like those that we practised last time and that begin with the words that I have already written on the lines for you. "D'you come here often?" of course means "Do you come here often?", and what question can you make of that, starting with "When"? - That's right: "When do you come here?" Write that there, please. ///// And then "D'you like this band?" What can you say, starting with "What"? - Right: "What do you like?" ///// And then: "D'you think I dance well?" becomes - well? - "How do you think I dance?" ///// And then "D'you mean it?" which becomes - "What do you mean?" ///// And finally: "Do I look all right?" which becomes - "How do I look?" ///// That's right. Now go back to your white papers again and go on reading the story.
Group: Es
A
Nu skall vi ta och fortsätta och lära oss lite mer om hur man ställer frågor på engelska och vi skall som förut jämföra med svenskan. Vi börjar som förut (1) och de är förstås inte riktiga. Men om vi lägger till ungefär vad vi lagt till de tidigare gångerna (2), så får vi fram riktiga meningar: "We look, We can look, We have looked, We are looking". Och när vi nu skall göra dem till frågor (3), så gör vi också som förut, vi lägger till frågetecken, ramen och pilarna. Men som alltid är det trassel med första meningen. Det finns nu ingenting i ramen där, men på engelska finns det inte heller något rätt utanför den. Vi markerar det med en röd ring (4), ett slags stor nolla, där vi tidigare haft röda bokstäver. Så flyttar vi in den i ramen (5)...

Den här ringen visar oss att det vi nu gör är exakt samma sak som vi gjort tidigare med "s"-et och med "ed". Och nu är vi klara att göra frågorna genom att följa pilarna. Och här har vi resultatet. (6) Och som förut är huvudsakliga meningarna bra: "Can we look, Have we looked, Are we looking". Men den första är ju ingen fråga: "we look". Och så har vi den där konstiga ringen eller nollan. Vi tar väl och gör som vi gjort förut, vi lägger till ett "do" (7) och eftersom "do" plus ingenting bara blir "do", så står där nu "Do we look", och vi har alla fyra meningarna rätt: "Do we look, Can we look, Have we looked, Are we looking". Och omigen ser vi skillnaden på engelska och svenska. På engelska står de svarta orden alltid kvar, och något är vår läggas till framför, om inte något litet rätt hjälpverb finns att flytta på. På svenska däremot kan man mycket väl vända på "Vi tittar" och säga "Tittar vi".
B

C

Lesson 5
Group: Ee

A

Today we shall do something new with our four English sentences. But let us start with them as before (1). Now they are correct at once: He looks, he can look, he has looked, he is looking. That is fine. Now we shall see what happens when we put in the word not in them (2). Let us put it up there and down at the bottom to begin with to remember that we must put it in somewhere. When we do this something again happens to the red words, so let us put them in frame, as we have done before (3) like this. Now, in English the word not always comes in after the words in the frame, so let us put it in there, one not in each sentence (4). What we get here is all right if we read the last three sentences: He can not look, he has not looked, he is not looking. But, the first one, as always, is more difficult. There is nothing in the frame there, so we must move the e (5) as we have done before, like this (6). But you can't say that, can you: He's not look. But, now you all know what to do, don't you? Of course, we must put in the word do, and now we get (7) four correct sentences: He does not look, he can not look, he has not looked, he is not looking. That is fine. As you know, we sometimes don't say not but just n't as in doesn't, hasn't, and we can also spell it that way. In fact, it's more common to say it, and spell it, that way.

These sentences here are correct but we can also say (8). He doesn't look, he can't look, he hasn't looked, he isn't looking. Notice that n't must go into the frame then to the verb. - Now let us go back to the beginning again (9) and see what happens when we talk about what happened yesterday. Then we say: He looked, he could look, he had looked, he was looking. Now we'll put in not (10)and then we get these four sentences with not after the frame again. In the first line there is nothing in the frame, so the e-d has to move in (11), and as you remember from before, when we add do we get did (12) like this, and now we have the four sentences He did not look, he could not look, he had not looked, he was not looking.
And now will you stop that for a minute and turn to the green page called "Sidan 3 A". When we made questions we noticed that sentences with little verbs like "can, are, was, would" were much easier than other sentences. Today, when we put in a "not" in our sentences we notice the same thing. That is why I have put all these little verbs in a frame again. You just put in the word "not" after these words. In English you quite often use "n't" instead. This word also come after the little verbs, but we must write them together and therefore we put it in frame where the other words already are. This last way of doing it, to use an "n't" is more common. That is why "I can not do it" is in parenthesis. What you should normally say is "I can't do it". Listen to me now. I'll read these sentences: I can do it. - I can't do it. - They are here. - They aren't here. - He was ill. - He wasn't ill. - She would do it. - She wouldn't do it. - But the next four sentences, as always, are more difficult. Here we have the full verbs "look, see, looked, saw" and not can't stand behind these. We put in an empty frame between "we" and "look" where "can" could have been and then we put in "not" after it or "n't" into it. And then we must move the ring, the "s" and the "e-d" into the frame and add the verb "do" just as we did when we were making questions. And then we get the following sentences, and now I want you to say after me, please: We look at it. '/////' We don't look at it. '/////' He sees it. '/////' He doesn't see it. '/////' We looked at it. '/////' We didn't look at it. '/////' They saw the girl. '/////' They didn't see the girl. '/////' - And now you try to remember this. Notice that the "s" and "ed" of the first sentence goes over to the verb "do" so that you say "He sees" but "He doesn't see" and "We looked" but "We didn't look". Now go back to page 3 again and go on writing.
Now I want you to stop reading for a minute. Look up the green the paper called "elevblad 2". Here you have a little bit of the story again, and here I have done as before, I have underlined some things that I want you to look at a little bit extra carefully. The Candidate, Mr Culpepper asks "D'you see what I mean?" and the Interviewer answers "I don't". What he means is of course: "I don't see what you mean". The word "see" must be used there. Therefore I have put it in a frame. Now I want you to write this long answer on the line to the right: "I don't see" - we can leave out the rest. /// And then if we go on, we come to "And your wife lives with you of course," and the answer "No, she doesn't" which means "No, she doesn't live with me". Write that, please. /// Now if we go to the next one perhaps you can tell me what you should write on the line: "You don't normally live apart" - "No, we don't"? - That's right: "No, we don't normally live apart," /// And the next one: "Does she know of your application?" - "No, she doesn't". What must you write now? - "No, she doesn't know". /// And the last one "But surely you write to each other" - "No, we don't". There we'll write - well? - "No, we don't write to each other". /// Fine, and now go back to your whitepapers and go on reading.
A 32

**Group: Es**

Idag skall vi ta och göra något nytt med våra meningar. Men vi tar och börjar med dem som förut, (1) fast de som du ser är riktiga redan från början: "He looks, He can look, He has looked, He is looking". Det låter ju bra. Nu skall vi se vad som händer, när vi sätter in ett "not" i dem. (2) Vi sätter ett "not" däruppå och ett därefter tills vidare, så att vi kommer ihåg, att vi skall ha in det någonstans. När vi gör det, så är det omigen så, att det är de röda orden som intresserar oss, så låt oss sätta en ram om dem som vanligt. (3) Nu är det så att ordet "not" på engelska alltid kommer efter orden i ramen, så låt oss sätta in ordet på alla raderna där nu. (4) Nu blir ju, som du säkert ser, de tre sista meningarna riktiga: "He can not look, He has not looked, He is not looking". I den första är ju ramen tom, så vi får göra som vi alltid har gjort förut, vi får flytta in allting som är rätt i den (5), vi flyttar alltså "s"-et, för de svarta orden får ju inte röras. (6) Men nu måste vi göra en sak till, för så där kan man ju inte säga. Vi måste lägga till det där lilla ordet "do", som "s"-et skall sitta på (7) och så får vi fram de hår fina meningarna: "He does not look, He can not look, He has not looked, He is not looking". Som du vet säger man inte alltid "not" på engelska, utan ibland säger man bara "n't" som i "doesn't" hasn't" osv och vi kan också stava det så. De meningar vi har här nu är riktiga, men vi kan också säga (6 .): "He doesn't look, He can't look, He hasn't looked, He isn't looking". Lägg märke till att det alltså är verbet som drar till sig "not" när det blir "n't" och att det alltså flyttar in i ramen då. - Nu skall vi gå tillbaka till början igen ett slag (9) och se vad som händer, när man talar om vad som inte hände igår, alltså om förfluten tid. Då säger vi alltså "He looked, He could look, He had looked, He was looking". Nu sätter vi in "not" igen (10), och då får vi fram de här meningarna med "not" efter ramen igen liksom förut. På första raden finns ju ingen i ramen, så vi får ta och flytta in (11) den röda ändelsen "ed", och som du nog minns sedan tidigare så får vi när vi lägger till ett "do" hår på engelska ett "did" (12) och har alltså nu meningarna: "He did not look, He could not look, He had not looked, He was not looking".
Vill du ta och stanna upp där ett slag och slå upp det röda papperet en stund, det som är märkt "sidan 3 A". När vi i de tidigare lektionerna skulle göra om påståenden till frågor, så märkte vi hela tiden att meningar med både hjälpverb och huvudverb var lättast. Idag skall vi lära oss vad som händar när man lägger till ett "not" på engelska. Det är omigen så, att meningar med hjälpverb är lättast. Där gör man nämligen på engelska som på svenska, man bara sätter in "not" efter "can, are, was, would". Därför har jag ritat en ram ikring de där orden. Nu kan man i stället sätta in ordet i själva ramen och skriva ihop det med hjälpverbet, och man säger då bara "n´t" som du vet. Det är i själva verket det vanligaste och därför har jag satt de andra meningarna inom parentes. Vi skall ta och läsa de fyra första meningarna här på sidan. Titta på ditt papper och lyssna: "I can't do it. - They aren't here. - He wasn't ill. - She wouldn't do it."

Men sedan när vi övergår till meningarna med huvudverb blir det värre. På svenska gör man som förut, man sätter in "inte" efter verbet och får fram meningar som "Vi tittar inte, Han ser inte" osv. På engelska måste "not" sättas efter hjälpverbet, och finns inget sådant, så får vi göra som vi är vana, vi får rita en ruta på hjälpverbets plats och sedan sätta in "not" efter den. I den rutan skall vi sedan dels flytta in verbets ändelse, som ju som du minns kan vara ett "s", ett "ed" eller en nolla. Och dessa ändelser skall hängas upp på ett "do", så att vi får fram formerna "does, did, do" och om vi väljer den vanligaste formen av "not", dvs "n´t", så får vi alltså i rutan "doesn´t, didn´t, don´t," och så får vi fram de meningar som står på ditt papper. Läs efter mig: "We look at it. - We don´t look at it. - He sees it. - He doesn’t see it. - We looked at it. - We didn’t look at it. - They saw the girl - They didn’t see the girl". Eftersom "ed" flyttas från huvudverbet, blir det ju bara "see" kvar i sista meningen precis som när vi gjorde frågor. Det var fint. Då får du återgå till de vita papperen igen och din skrivning.
Så tar du och gör en liten paus och slår upp det röda bladet, märkt "elevblad 2". Här ser du en bit av dialogen mellan "the Candidate", Mr Culpepper, och "the Interviewer". Här har jag som tidigare strukit under vissa saker som jag vill att du skall titta litet närmare på. När Mr Culpepper frågar "D’you see what I mean?", så svarar intervjuaren "I don’t". Det han menar är alltså "I don’t see what you mean". Sådana långa svar brukar man inte ge men man kan göra det. Vi skall ta och skriva ut det här på raden. Gör det. ///// Och nu skall vi försöka göra likadant med de andra fyra. Lägg märke till att man i svaret måste ha med det ord som jag satt en ram ikring. Alltså: "And your wife lives with you" besvaras med "No, she doesn’t" vilket betyder jaha, det var riktigt - "No, she doesn’t live with me". Skriv det. ///// Och sedan: "You don’t normally live apart", med svaret "No, we don’t" vilket vi kan förlänga till "we don’t normally live apart". ///// Och sedan kanske vi kan nöja oss med att säga de sista två utan att skriva ut dem. "Does she know of your application?" - "No, she doesn’t" blir då - "No, she doesn’t know of my application". Och det sista: "But surely you write to each other" med svaret "No, we don’t" som förlängt blir - "No, we don’t write to each other". - Det är bra. Då kan du återgå till de vita bladen och din läsning.
Lesson 6

We have learnt in the other lessons what happens to an English sentence if we make it into a question, and also what happens when we put in not in it. Today we shall try to do both at the same time. Let’s start with the same four sentences as before (1): He looks, he can look, he has looked, he is looking. And then we put in not and add question marks (2) at the same time. What happens? Well, to begin with we must do something about the first sentence, where the red letter s is in the wrong place, like this (3). As we have already learnt, this is not correct English, we must do a little more, we must add the word do, and then we get (4) four correct negative sentences: He does not look, he can not look, he has not looked, he is not looking. But still they are not questions. What must we do? Of course, we must move all the words in the frame to the beginning of the sentences (5) like this. And when we do that we get four fine English questions (6). Does he not look, Can he not look, Has he not looked, Is he not looking. And that is correct English. You can say it that way. But as we said last time you can also say n’t instead of not, and this, as we also said, is more common. Let us see what happens then. We’ll go back a little bit (7), here we are: he does not look, he can not look, he has not looked, he is not looking. Instead we can say (8) - and now notice that n’t goes inside the frame as we said last time - he doesn’t look, he can’t look, he hasn’t looked, he isn’t looking. And now we make questions as before (9) and move the frame to the beginning, but now the little word n’t is in it so what we get is (10) Doesn’t he look, Can’t he look, Hasn’t he looked, Isn’t he looking. Now go on with the following exercise and try to remember this. Then you’ll get the sentences right.
Now turn the page for a little while and look at the green paper called "Si-dan 2 A". You remember the pictures we just look at, I hope. This is the same thing. We have a sentence like "He can sing". When we put in a "not" we get the sentences that you have at the top of your paper here. We say "He can't sing" or sometimes "He can not sing". "She has been there" becomes "She hasn't been there" and if you go down to example four here, you remember that "He sings well" must become as we have it here "He doesn't sing well". "I saw him" becomes - look - "I didn't see him" and "He took it" "He didn't take it". Now we shall make questions of these sentences. As you remember from last time we can put in a "not" which we put after the frame, or an "n't" which we put in the frame, just as I have done here. Notice that "not" is not in the frame but "n't" is.

When we make questions now, the frames must go to the beginning of the sentences, and then you get the sentences or questions to the right on your paper: 'Can't he sing? ' which is the normal way of saying it, or 'Can he not sing? ' which is not so common but quite correct. If I read the sentences to the left, will you then read the questions to the right, please: 'He can't sing.' 'Can't he sing? - She hasn't been there.' 'Hasn't she been there?' - 'We aren't looking at it.' 'Aren't we looking at it?' - When we come over to the next three, those that are always so difficult because there are full verbs like "sing, see, take" in them, you notice that the difficulty comes in when you put in "not". When you have done that, as we have on this paper, it isn't very difficult, because now we have a little verb, "do", which can go to the front and which takes "n't" with it. Let's read these too: 'He doesn't sing well.' 'Doesn't he sing well? - I didn't see him.' 'Didn't I see him?' - "We didn't take it." 'Didn't we take it?' - Good, and now go back to page 2 and go on writing and try to remember this. Good luck!
A 37

Now stop reading for a minute, will you, and turn to the green paper called "elevblad 2" and look at the sentences there. As we have said before, you can ask questions in three ways in English. One of them is the common kind that we have practised so much, the other two are the tags, the little questions that you hang on the end of ordinary sentences. If there is a "not" in the sentence, then you can't have a "not" or "n't" in the question, but if there is no "not" in the sentence, then the question must have "not" or "n't". Look at the first four sentences here and say after me: I couldn't do anything else, could I? // /// Well, you could have waited, couldn't you? // /// You don't want them to waste the whole day, do you? // /// You know it is, don't you? // /// These sentences all come from the story you are just reading. Now we shall try to make four sentences ourselves. What must the first one be? Right: "I have a book, haven't I?" Write that out, please. // /// And the next one? - "I can't do it, can I?" // /// And the next one? - "You don't drink beer, do you?" // /// And the last one? - "You like milk, don't you?" // /// - Now look at the six sentences at the bottom of your paper. They all come from the story. Notice that they are all questions and that there is an "n't" in them. When you go back to your white papers now and read the story, look out for sentences like these, questions with a "not" in them. Good luck!
Vi har tidigare lärt oss hur man gör på engelska när man gör om en mening till fråga och också vad som händer när man sätter in ett "not" i den. Idag skall vi se hur det går när man gör båda sakerna samtidigt, när man får fram vad som kallas en nekande fråga. Vi börjar med våra vanliga meningar (1) som här är färdiga och riktiga: "He looks, He can look, He has looked, He is looking". Och så sätter vi in både ett "not" och ett frågetecken per mening. (2) Vad händer då? Tja, först måste vi göra något åt den första meningen där ju "s"-et står på fel ställe, vi flyttar alltså in det (3) i rutan som vanligt. Och så lägger vi till det vanliga lilla .ordet (4) och får fram riktiga nekande meningar: "He does not look, He can not look, He has not looked, He is not looking". Men de är ju fortfarande inte några frågor. Vi måste alltså flytta orden som vi brukar vid frågor (5) så som pilarna visar, och vi får ju då (6) fina meningar: "Does he not look, Can he not look, Has he not looked, Is he not looking". Detta är alltså riktiga engelska meningar. Men som vi lärde oss förre gången så kan man också på engelska dra ihop ordet "not" till ett "n't". Vi skall ta och se vad som händer då. Detta är ju som vi sa sist det vanligaste på engelska. Vi tar och går tillbaka litet (7): "He does not look, He can not look, He has not looked, He is not looking". I stället kan vi, som du kommer ihåg, säga (8) - och lägg nu märke till att "n't" måste stå inom ramen, det är alltså "not" som flyttar ihop med verbet - "He doesn't look, He can't look, He hasn't looked, He isn't looking". Och så gör vi frågor av dessa på vanligt sätt (9), dvs vi låter orden inom ramen flytta till början av meningen, men eftersom "n't" nu står inom ramen, så får det följa med, så v. får alltså (10): "Doesn't he look, Can't he look, Hasn't he looked, Isn't he looking" -
Vill du stanna litet där och i stället låt upp det röda papperet, märkt "sidan 2 A". Som du kommer ihåg från bilderna vi såg för en liten stund sedan och från förra lektionen, så sätter man ett "not" eller "n't" på engelska omedelbart efter hjälperverben, efter verb som "can, has, are". Om inget hjälperverb finns, måste man sätta in verbet "do" eller någon av dess andra former, så att man får fram sådana meningar som de tre sista här på sidan: "He doesn't sing well, I didn't see him, We didn't take it". Som du också kommer ihåg satte vi "not" efter ramarna med hjälperverbet i, men den förkortade formen "n't", som ju måste skriva ihop med hjälperverbet, flyttade vi in i ramen, precis så som jag har ritat det på det här bladet. Nu skall vi göra frågor av de här meningarna. Vad gör vi då? Jo, naturligtvis måste alla ord inom ramarna flyttas till början av meningarna, precis så som vi är vana. Vi får då fram två olika frågor. Vi kan titta på de första. Man säger alltså anningen: "Can't he sing?", vilket är det vanligaste, eller "Can he not sing?", vilket är alldeles riktigt men inte så vanligt, och därfor står det inom parentes. Som du ser kan vi på svenska göra likadant, vi kan låta "inte" följa med framt eller låta det stanna kvar. I det första exemplet här är väl "Kan han inte sjunga?" det vanligaste, men om vi säger "pojken" i stället för "han", så brukar vi nog oftast säga "Kan inte pojken sjunga?". Det är alltså ungefär likadant på engelska och svenska. Nu skall vi ta och läsa de engelska meningarna tillsammans. Säg efter mig. "He can't sing. - Can't he sing? - She hasn't been there. - Hasn't she been there? - We aren't looking at it. - Aren't we looking at it? - He doesn't sing well. - Doesn't he sing well? - I didn't see him. - Didn't I see him? - We didn't take it. - Didn't we take it?". Bra, då kan du återgå till de vita papperen och din skrivning.
Nu skall du ta och göra en liten paus, så skall vi ta och prata litet. Slå upp det röda papperet som kallas "elevblad 2", så skall vi se på meningarna där tillsammans. Som vi sagt förut kan man ställa frågor på tre sätt på engelska. Det ena har vi övat mycket under de här lektionerna, det är det vanliga sättet. De andra två är de s k *tags*, dvs små frågor som man hänger på i slutet av vanliga meningar. Om meningen innehåller ett "not" så får den här påhängda frågan inte göra det, men om meningen inte innehåller ordet "not", så måste frågan innehålla "not" eller "n't". Vi tar och tittar på de fyra första meningarna på bladet. Läs efter mig. "I couldn’t do anything else, could I?" "Well, you could have waited, couldn’t you?" "You don’t want them to waste the whole day, do you?" You know it is, don’t you?" På svenska har vi ingen riktig motsvarighet, vi säger "eller hur" eller "inte sant": "Du kan komma, inte sant?", "Du kommer väl i morgon, eller hur? De här exemplen kommer från vår text. Låt oss nu göra fyra egna meningar. Tag och skriv färdigt. "I have a book - haven’t I?" Och sedan nästa: "I can’t do it" - just det, här har vi redan ett "n’t", så vi fortsätter "can I?" Och likadant i nästa: "You don’t drink beer, do you?" - Och i det sista blir det svårare, för här skall vi lägga till ett "not" och måste då också ta med ett "do", så meningen blir: "You like milk, don’t you?". - Innan vi lämnar det här skall vi titta på de sex meningarna som står längst ner på sidan. De är alla hämtade från texten och de har det gemensamt att de alla är frågor och att de alla innehåller ett "not". När du nu återgår till texten och läser vidare i den, så håll ögonen öppna för meningar som är frågor och som samtidigt innehåller ett "not" eller "n’t". Det finns många sådana. Lycka till!
Bo and Es: Lesson 2
Manuscript for Slides

1.
- He look
- He can look
- He has looked
- He is looking

2.
- He looks
- He can look
- He has looked
- He is looking

3.
- He looks
- He can look
- He has looked
- He is looking

4.
- He looks
- He can look
- He has looked
- He is looking

5.
- He looks
- He can look
- He has looked
- He is looking

6.
- He looks
- He can look
- He has looked
- He is looking
Lesson 5

1. He looks
   He can look
   He has looked
   He is looking

2. He doesn't look
   He can't look
   He hasn't looked
   He isn't looking

3. He looks
   He can look
   He has looked
   He is looking

4. He looks
   He can't look
   He hasn't looked
   He isn't looking

5. He looks
   He can't look
   He hasn't looked
   He isn't looking

6. He looks
   He can't look
   He hasn't looked
   He isn't looking

13: Contractions form; didn't etc., otherwise same as 12 above.
he looks
he can look
he has locked
he is looking

he doesn't look
he can't look
he hasn't looked
he isn't looking

he doesn't look
he can't look
he hasn't looked
he isn't looking

he doesn't look
he can't look
he hasn't looked
he isn't looking

he doesn't look
he can't look
he hasn't looked
he isn't looking

Does he not look?
Can he not look?
Has he not looked?
Is he not looking?
Appendix B

THE ACHIEVEMENT TEST
Namn

Klass

Skola

Eng. lärare

Engelska - åk 7

Förprov - delprojekt I

The do-construction

A eller S
Delprov A

Besvara nedanstående frågor på engelska!

1. Is Ann a girl? Yes, she ________.
2. Are you a pupil? Yes, I ________.
3. Is your teacher older than you are? Yes, ________.
4. Can you speak Swedish? Yes, ________.
5. Do you go to school on Mondays? Yes, ________.
6. Does President Johnson live in America? Yes, ________.
7. Did you go to school last year too? Yes, ________.
8. Do the Beatles live in England? Yes, ________.
9. Do Mr Humphrey and Mr Nixon come from USA? Yes, ________.
10. Do Swedish people normally speak Swedish? Yes, ________.

VÄND INTE BLAD FÖRÅN DU BLIR TILLSAGD!
Delprov B
Gör svaren i nedanstående exempel fullständiga genom att fylla i ett ord på varje tom rad!

1. Where does Mr Kosygin live? He _______ in Russia.
2. Where do the Beatles come from? They _______ from Liverpool.
3. When did President Kennedy die? He _______ in 1963.
4. Where does your mother come from? She _______ from ________.
5. What did you do about it? I _______ all I could.
6. What colour did he paint his house? He _______ it red.
7. How did he do it? He _______ it with his hands.
8. When does a car stop? It _______ when there is no petrol left.
10. Whom did you see on the ship? I _______ your sister there.

VÄND INTE BLAD FÖRRÄN DU BLIR TILLSAGD!
Lärarhögskolan i Göteborg  
GUME-projektet  
Torsten Lindblad  
23/9/68

**Delprov C**

Markera med kryss i rätt ruta, om du tycker att man på de tomma raderna i de här meningarna bör fylla i **like**, **likes** eller **liked**!

<table>
<thead>
<tr>
<th></th>
<th>like</th>
<th>likes</th>
<th>liked</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you _______ coffee?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. He _______ tea better than coffee now.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Did he _______ tea as a child?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. He _______ milk when he was a child.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Does his sister _______ Chinese silk?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Yes, she _______ it very much.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. She _______ it better before the revolution.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Does she _______ General Eisenhower?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Yes, she _______ him very much.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. But during the war she _______ him even better.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

VÄND INTE BLAD FÖR RÄN DU BLIR TILLSAGD!
Delprov D

Markera med kryss i rutan till vänster eller till höger för varje mening som du nu får höra, om du tycker att man kan säga så på engelska, om meningen är riktig eller felaktig engelska:

<table>
<thead>
<tr>
<th>Rätt Fel</th>
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</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
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<tr>
<td>3</td>
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<td>4</td>
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<td>5</td>
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<td>6</td>
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<td>7</td>
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<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
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<tr>
<td>10</td>
</tr>
</tbody>
</table>

VÄND INTE BLAD FÖRRÅN DU BLIR TILLSAGD!
Delprov E

Tänk dig nu att du talar direkt till mig och ställ frågor till mig på engelska. Om jag på svenska säger: Fråga mig, om jag är sjuk! så säger du förstås: Är du sjuk? Om jag på engelska säger: Ask me if I am ill! så bör du säga: Are you ill? Gör nu likadant här!

1. Ask me if I can speak German.
2. Ask me if my sister drinks tea every morning.
3. Ask me if I like bananas.
4. Ask me if I was in Scotland last summer.
5. Ask me if I saw many kilts.
6. Ask me if we walked a lot.
7. Ask me if my parents are Italian.
8. Ask me if my professor speaks good English.
9. Ask me if my brother and sister like football.
10. Ask me if I liked coffee when I was a child.

VÄND INTE BLAD FÖR RÄN DU BLIR TILLSAGD!
Lärarhögskolan i Göteborg
GUME-projektet
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Delprov 2:

1.  
   a) Do you smoke a pipe?  
   b) Smoke you a pipe?  
   c) Do smoke you a pipe?

2.  
   a) Does like your sister milk in her tea?  
   b) Do your sister likes milk in her tea?  
   c) Likes your sister milk in her tea?  
   d) Does your sister like milk in her tea?  
   e) Does your sister likes milk in her tea?

3.  
   a) Can go we there tomorrow?  
   b) Can we go there tomorrow?  
   c) Do can we go there tomorrow?  
   d) Do we can go there tomorrow?

4.  
   a) Does you are ill?  
   b) Do you are ill?  
   c) Are you ill?

5.  
   a) Did saw you him?  
   b) Did you saw him?  
   c) Saw you him?  
   d) Did see you him?  
   e) Did you see him?

VÄND!
6.
   a) Must we go now?
   b) Do we must go now?
   c) Does we must go now?
   d) Do we must goes now?

7.
   a) Do he lives in Sweden?
   b) Live he’s in Sweden?
   c) Does he live in Sweden?
   d) Does he lives in Sweden?
   e) Lives he in Sweden?

8.
   a) Did she love the boy?
   b) Did she love the boy?
   c) Loved she the boy?
   d) Did love she the boy?
   e) Did she loves the boy?

9.
   a) When does your father gets up in the morning?
   b) When gets up your father in the morning?
   c) When gets your father up in the morning?
   d) When do your father gets up in the morning?
   e) When does your father get up in the morning?

10.
    a) Why did your brother does it?
    b) Why did your brother it?
    c) Why did your brother did it?
    d) Why did your brother do it?

VÄND INTE BLAD FÖRRÅN DU BLIR TILLSAGD!
Delprov G

Gör om följande meningar till frågor tyst för dig själv, och tänk dig hur de skulle se ut. Om den meningen du då får fram börjar med Do sätt då ett kryss i ruta 1; börjar den med Does så markera ruta 2; börjar den med Did så markera ruta 3. Om du anser att varken, Do, Does eller Did bör förekomma, så markera i ruta 4!

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

1. He speaks English.
2. He lived in France for a year.
3. He is ill.
4. The pupils want to do it.
5. He can speak English.
6. He and his brother speak Swedish.
7. We worked hard yesterday.
8. He does it very often.
9. We can do it now.
10. They come from Finland.

VÄND INTE BLAD FÖRKRÄN DU BLIR TILLSAGD!
Delprov H

Gör om dessa påståenden till frågor!

1. We are in Sweden. _______ 
2. He speaks English. _______ 
3. I like tea. _______ 
4. I can see him. _______ 
5. He lived in USA. _______ 
6. His sister loves school. _______ 
7. He and his brother live in England _______ 
8. She sings very well. _______ 
9. He spoke to my brother. _______ 
10. We go to school five days a week. _______ 

VÄND INTE BLAD FÖRRÄN DU BLIR TILLSAGD!
Delprov I

Markera med kryss i rätt ruta om du anser att de här frågorna bör börja med do, does eller did.

<table>
<thead>
<tr>
<th></th>
<th>Do</th>
<th>Does</th>
<th>Did</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
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<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
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<td>5.</td>
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<tr>
<td>6.</td>
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<td>7.</td>
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<tr>
<td>8.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. _______ you like tea?
2. _______ your parents live in Sweden?
3. _______ you see him yesterday?
4. _______ his teacher speak German every day?
5. _______ the Beatles sing well last night?
6. _______ his brother and sister live in England now?
7. _______ he go to school in Lund this year?
8. _______ he smoke as much as he did last year?
9. _______ he come from Finland last Thursday as he said he would?
10. _______ your parents help you with your homework nowadays?

VÄND INTE BLAD FÖRRÄN DU BLIR TILLSAGD!
**Delprov J**

Markera med kryss i rutan till vänster eller till höger om nedanstående meningar är rätt eller fel; inte om innehållet är rätt eller ej, utan om man kan säga så på engelska eller inte.

<table>
<thead>
<tr>
<th></th>
<th>Rätt</th>
<th>Fel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you live in France?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Speaks he Swedish?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Doesn’t she live in England?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Live we in Sweden?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. She lives not in America.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Does Mr Wilson lives in England?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Don’t your father and mother come from India?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Did they like it?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. They liked it not.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. How did he his homework?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

VÄND INTE BLAD FÖRRÅN DU BLIR TILLSAGD!
Gör om följande påståenden till nekande satser tyst för dig själv. Om du anser att det räcker att sätta in ett **not** i meningen så markera detta med kryss i ruta ett, anser du att man måste sätta in ett **don’t**, kryssa då ruta två, vill du ha doesn’t så ta trean, och vill du ha didn’t så markera i ruta fyra.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I am a teacher.</td>
<td>not</td>
<td>don’t</td>
<td>doesn’t</td>
</tr>
<tr>
<td>2</td>
<td>I drink tea every morning.</td>
<td>not</td>
<td>don’t</td>
<td>doesn’t</td>
</tr>
<tr>
<td>3</td>
<td>She is very old.</td>
<td>not</td>
<td>don’t</td>
<td>doesn’t</td>
</tr>
<tr>
<td>4</td>
<td>My brother likes to live in Stockholm.</td>
<td>not</td>
<td>don’t</td>
<td>doesn’t</td>
</tr>
<tr>
<td>5</td>
<td>Mr Wilson smokes a lot.</td>
<td>not</td>
<td>don’t</td>
<td>doesn’t</td>
</tr>
<tr>
<td>6</td>
<td>I worked in Spain for two years.</td>
<td>not</td>
<td>don’t</td>
<td>doesn’t</td>
</tr>
<tr>
<td>7</td>
<td>We learn a lot of English at school.</td>
<td>not</td>
<td>don’t</td>
<td>doesn’t</td>
</tr>
<tr>
<td>8</td>
<td>I do my homework in the afternoon.</td>
<td>not</td>
<td>don’t</td>
<td>doesn’t</td>
</tr>
<tr>
<td>9</td>
<td>He sailed across the Atlantic this summer.</td>
<td>not</td>
<td>don’t</td>
<td>doesn’t</td>
</tr>
<tr>
<td>10</td>
<td>He seems to like sailing very much.</td>
<td>not</td>
<td>don’t</td>
<td>doesn’t</td>
</tr>
</tbody>
</table>

**VÄND INTE BLAD FÖR RÄN DU BLIR TILLSAGD!**
Lärarhögskolan i Göteborg
GUME-projektet
Torsten Lindblad
23/9/68

Delprov L

Här följer ett antal sådana där meningar som börjar på flera olika sätt. Välj ut det sätt du tycker är rätt eller bäst och markera med ett kryss i rutan!

1.

<table>
<thead>
<tr>
<th></th>
<th>a) I don't like whiskey.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b) I like not whiskey.</td>
</tr>
<tr>
<td></td>
<td>c) I do like not whiskey.</td>
</tr>
<tr>
<td></td>
<td>d) Like I don't whiskey.</td>
</tr>
</tbody>
</table>

2.

<table>
<thead>
<tr>
<th></th>
<th>a) Doesn't speak she English?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b) She speaks not English.</td>
</tr>
<tr>
<td></td>
<td>c) She do not speaks English.</td>
</tr>
<tr>
<td></td>
<td>d) She doesn't speak English.</td>
</tr>
</tbody>
</table>

3.

<table>
<thead>
<tr>
<th></th>
<th>a) I lived not in Africa in 1925.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b) I didn't live in Africa in 1925.</td>
</tr>
<tr>
<td></td>
<td>c) I did live not in Africa in 1925.</td>
</tr>
<tr>
<td></td>
<td>d) I do not lived in Africa in 1925.</td>
</tr>
</tbody>
</table>

4.

<table>
<thead>
<tr>
<th></th>
<th>a) Do I can not understand Chinese.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b) I can not do understand Chinese.</td>
</tr>
<tr>
<td></td>
<td>c) I do not can understand Chinese.</td>
</tr>
<tr>
<td></td>
<td>d) I can not understand Chinese.</td>
</tr>
</tbody>
</table>

5.

<table>
<thead>
<tr>
<th></th>
<th>a) Do like you not singing in the rain?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b) Like you not singing in the rain?</td>
</tr>
<tr>
<td></td>
<td>c) Don't you like singing in the rain?</td>
</tr>
<tr>
<td></td>
<td>d) Do you like not singing in the rain?</td>
</tr>
</tbody>
</table>

VÄND!
6.

a) Did he promise you not the book?
b) Did he not promised you the book?
c) Didn’t he promise you the book?
d) Promised he you not the book?

7.

a) Don’t you see it?
b) Do see it you not?
c) Don’t you saw it?
d) See it you not?

8.

a) We drink not milk very often.
b) We don’t drink milk very often.
c) We do drink not milk very often.
d) Do drink we not milk very often.

9.

a) Why do your brother not come home now?
b) Why doesn’t your brother comes home now?
c) Why doesn’t your brother come home now?
d) Why comes your brother not home now?

10.

a) Like your father and mother coffee?
b) Do your father and mother like coffee?
c) Does your father and mother like coffee?
d) Do like your father and mother coffee?

NU ÄR PROVET SLUT. SLÅ IGEN DITT HäFTE OCH VÄNTA TILLS DU BLIR TILLSAGD. STÖR EJ KAMRATERNA!
Appendix C

THE PUPIL ATTITUDE TEST
Intresse för olika skolämnen.

Namn: ____________________________ Klass: __________

Skola: _______________________________________

Engelsklärare: _______________________________________

Jag läser _ allmän _ kurs i engelska. _ särskild

Sätt ett kryss (x) för varje ämne inom parentesens under den pil som bäst visar hur du tycker om det ämnet! Tänk efters inte bara hur du tycker just idag utan hur du brukar tycka.

Hoppa inte över något ämne som du hör!

<table>
<thead>
<tr>
<th>Ämne</th>
<th>Nästan alltid</th>
<th>Mera roligt än</th>
<th>Mera träkigt än</th>
<th>Nästan alltid</th>
<th>Mera roligt</th>
<th>Mera träkigt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Svenska</td>
<td></td>
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<tr>
<td>Matematik</td>
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<tr>
<td>Engelska</td>
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<tr>
<td>Kristendomskunskap</td>
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<tr>
<td>Samhällskunskap</td>
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<tr>
<td>Biologi</td>
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<tr>
<td>Fysik</td>
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<tr>
<td>Musik</td>
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<tr>
<td>Teckning</td>
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<tr>
<td>Slöjd</td>
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<td>Hemkunskap</td>
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<td>Gymnastik</td>
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<td>Tyska</td>
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<tr>
<td>Franska</td>
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<tr>
<td>Maskinskrivning</td>
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</tbody>
</table>
Lärarhögskolan i Göteborg  
GUME-projektet  
Ld - 11/68

Elevenkät - attitydformulär.

Namn: ____________________________ Klass: ____________________________
Skola: ____________________________ Jag läser __________ kurs i eng.  
särskild
Engelsklärare: ____________________________

Du har under de sista fyra veckorna varit med i det s.k. GUME-projektet,  
vilket har inneburit att du dels fått ett antal olika prov, dels fått  
följa sex lektioner med hjälp av hörlurar och s.k. magnetslinga. Vi vill  
u nu höra litet om vad du tynt om det här. Svara på alla frågorna; svara  
med kryss (x) eller korta meningar.

1. Jag har varit med på __________ av de sex lektionerna.
2. Det som var bra med GUME-lektionerna var att

______________________________________________________________

______________________________________________________________

______________________________________________________________

3. Det som inte var bra med GUME-lektionerna var att

______________________________________________________________

______________________________________________________________

4. På de här timmarna lärde jag mig engelska

_____ mycket bättre än på vanliga timmar
_____ något bättre än på vanliga timmar
_____ ungefär som på vanliga timmar
_____ något sämre än på vanliga timmar
_____ mycket sämre än på vanliga timmar

5. De här timmarna var

_____ mycket roligare än vanliga timmar
_____ något roligare än vanliga timmar
_____ ungefär som vanliga timmar
_____ något tråkigare än vanliga timmar
_____ mycket tråkigare än vanliga timmar
Det som var roligare var att

Det som var trakigare var att

Tiden under de här timarna verkade gå

- mycket fortare än under vanliga timmar
- något fortare än under vanliga timmar
- ungefär som under vanliga timmar
- något långsammare än under vanliga timmar
- mycket långsammare än under vanliga timmar

Efter de här timarna kände jag mig

- mycket tröttare än efter vanliga timmar
- något tröttare än efter vanliga timmar
- ungefär som efter vanliga timmar
- något mindre trött än efter vanliga timmar
- mycket mindre trött än efter vanliga timmar

(Om du var trött:) Det som gjorde mig trött var:

Jag tyckte att lurarna fungerade

- mycket bra
- bra
- rätt dåligt
- mycket dåligt

Jag tyckte att ljudet i allmänhet var

- mycket bra och lätt att höra
- bra
- rätt dåligt
- mycket dåligt och svårt att höra
13 (Denna fråga skall du bara besvara om du hade gröna eller röda blad i dina buntar på lektionerna och om du alltså fick se bilder ibland)

De förklaringar vi fick tyckte jag

____ gjorde det mycket lättare att förstå
____ gjorde det något lättare att förstå
____ inte gjorde någon skillnad
____ gjorde det något svårare att förstå
____ gjorde det mycket svårare att förstå

14 De muntliga övningarna, då vi skulle prata själva, tyckte jag var

____ mycket bra
____ bra
____ rätt dåliga
____ mycket dåliga


därför att ____________________________

15 De skriftliga övningarna tyckte jag var

____ mycket bra
____ bra
____ rätt dåliga
____ mycket dåliga


därför att ____________________________

16 Lästexterna tyckte jag var

____ mycket bra
____ bra
____ rätt dåliga
____ mycket dåliga


därför att ____________________________

17 Ytterligare kommentarer som jag skulle vilja framföra:

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________
Appendix D

THE TEACHER ATTITUDE TEST
Lärarenkät I - allmän metodik.

Detta formulär kan ifyllas anonymt om Du så önskar och insändas separat. Skriv svaren på maskin om Du vill. Vi kommer givetvis inte att förorsaka spåra någon men tycker det vore intressant att kartlägga lärarinställningen till de angivna frågorna. Vi hoppas på hundraprocentig svarsfrekvens.

Namn (ej obligatoriskt): ____________________________

1. man / kvinna
2. Ålder: 20-30 30-40 40-50 50-
3. Utbildning:  
   - folksskolläare
   - vidareutbildning i engelska
   - fil.mag.
   - antal betyg i engelska
   - annan utbildning (Vad?)
4. Erfarenhet:  
   - mellanstadiet i engelska (_____ antal år)
   - högstadiet (_____ år) (Tre år med tjänst p. både högst. och gym
   - gymnasiu (+fackskola) (_____ år)
   - annat (Vad? _____ _____ _____ _____)
5. Ämnen: betyg i  
   - erfarenhet av underv.  
   - ty fr nr. ry annat
   - spr. av
6. Praktisk lärarutbildning år _____ (folkskolläarex, provår, lärarhögsk)
7. Min/a klass/er har nu metoden: Im Es Es
   (=i projektet)
   - ren förkl. förkl.
   - struktur- på på
   - övning eng sv
8. Vi har deltagit i projekt _____ I: do-konstr.
   _____ II: some-any
   _____ III: passiv
9. Jag tror - utan att i detalj känna till de övriga metoderna - att ni kommer att lyckas bäst med  
   - bland svaga
   - bland medel
   - bland duktiga
   | Im | Es | Es |
   |------------------|
   | bland svaga     |
   | bland medel     |
   | bland duktiga   |
10 Jag brukar nog själv i år 7 följa vad som närmast torde motsvara

No  Be  annat (Vad? _____________)

11 Jag tycker att eleverna på högstadiet (år 7-8) bör ha en grammatik-

lärobok. ja / nej

12 Jag tycker att man bör ge grammatiska förklaringar:

varje lektion rätt ofta och regelbundet någon gång ibland

aldrig

13 Om grammatisk förklaring skall ges, så bör den ges:

___ a) på svenska  -  på engelska

___ b) av läraren, snabbt och konkist

___ c) av någon elev och sedan rundas av av läraren

14 Jag anser att undervisningen bör föra till ca ___% på engelska.

15 Ovanstående siffror bör vara samma för allmän och särskild kurs: ___

vara större i särskild kurs än i allmän: ___

vara större i allmän kurs än i särskild: ___

16 Kursplanernas anvisningar beträffande dessa saker är i stort sett:

___ tämligen orealistiska i allm /särsk

___ tämligen ogenomförbara i allm /särsk

___ svåra att följa i allm /särsk

___ i stort sett bra och riktiga i allm /särsk

___ utmärkta och realistiska i allm /särsk
Lärarenkät II - synpunkter på projektet.

Vi ber Dig fylla i detta formulär så omsorgsfullt och noga som möjligt. Använd gärna baksidan eller extrablad för att ge fylliga kommentarer.

Namn: ___________________________________________ Skola: ____________________________

Jag har en _____ kurs som undervisades efter In/Es/Es -metoden.

1 Min inställning till projekttiderna innan vi började var:

____________________________________________________________________________________

____________________________________________________________________________________

2 Min inställning har ändrats i följande avseenden:

____________________________________________________________________________________

____________________________________________________________________________________

3 Jag anser fortfarande:

____________________________________________________________________________________

____________________________________________________________________________________

4 Bra med den metodik som min klass undervisades efter var (om Du hade två klasser med så dela upp synpunkterna):

____________________________________________________________________________________

____________________________________________________________________________________

5 Mindre bra eller dåligt var: (jfr frågorna nedan innan Du svarar)

____________________________________________________________________________________

____________________________________________________________________________________

6 (För dem som hade E-grupp) Om de grammatiska förklaringarna anser jag:

____________________________________________________________________________________

____________________________________________________________________________________
7 Om de muntliga övningarna anser jag:

8 Om de skriftliga övningarna anser jag:

9 Om läsoövningarna anser jag:

10 Om tempot - pauslängder och talhastighet - anser jag:

11 Om den tekniska kvaliteten på band, hörlurar, bandspelare etc anser jag:

12 Om besökande assistenten (ev. -erna) anser jag:

13 Elevernas reaktion jämfört med vanlig undervisning synes vara beträffande
   a) intresse:

   b) disciplin:

   c) inlärningseffekter:

14 Om för- och efterprovet anser jag:
GUME-projektet - Lärarenkät II - forts.

15 Kommentarer - positiva och negativa - till de enskilda lektionerna 
(gärna lektionsvis för alla sex, ev. även inskolningslektionen):

_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

16 Med tanke på inlärningseffekter och annat anser jag sammanfattningsvis att 
de här fyra veckorna varit:

____ i det närmaste helt bortkastade
____ tämligen värdelösa
____ ung. som vanligt
____ bra
____ mycket bra

17 Den metod som mina elever fått prova anser jag vara:

____ dödfödd
____ användbar i framtiden med följande ändringar:
_________________________________________________________________________
_________________________________________________________________________

18 Ytterligare kommentarer:
Appendix E

PUPILS' INTEREST IN VARIOUS SCHOOL SUBJECTS
| subject          | class: |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |   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The study of pupil interest in various school subjects makes interesting reading. In table E:1 on the preceding page only the ten subjects which are compulsory for all pupils in form 7 are included. The top ten list looks like this (the figures in brackets are the means for each subject after the total means has been divided by the number of classes):

1. Gymnastics (3.5)  
2. Domestic Science (3.5)  
3. Drawing (3.35)  
4. Mathematics (3.10)  
5. English (3.05)  
6. Swedish (3.03)  
7. Biology (2.85)  
8. Physics (2.80)  
9. Civics (2.53)  
10. Religion (2.35)

This list shows that Gymnastics, Domestic Science and Drawing are in a class by themselves, on the whole very popular. Mathematics, English and Swedish form another group of subjects which are more liked than disliked. Civics and Religion are far below all the others and are on the whole considered as rather dull.

When the different classes are compared, we see that five of the six ak classes are at the bottom of the list; only number 6 seems to have a good interest in school and comes in 7 before many of the sk classes. These figures seem to indicate that pupils taking ak in English (this is not a division of the pupils in all subjects but only in English) are those who have lost interest in school in general.
NOTE: For convenience this appendix has been bound as a separate booklet.

The edition is unfortunately limited and will be distributed for as long as it lasts.
p 42 and p 64:
The headlines should be of the "third" kind beginning a line, not on a line of their own. Therefore they are not included in the Table of Contents.

pp 97 and 98:
These numbers have, unfortunately, been used twice. The bibliography should be paginated 99-106.
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