

ASSESSMENT OF THE ACTIVE ENGLISH PROFICIENCY
OF SPEAKERS OF ENGLISH AS A FOREIGN LANGUAGE
AS A BASIS FOR SYLLABUS DESIGN

by 45

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DEDICATION

This thesis is dedicated to the author's parents,

Lt. Col. and Mrs. A.R. Fox.

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1. Introduction

1.1. Statement of the problem

The application of linguistic science to language teaching has facilitated great advances in the field. The emphasis on active performance which linguistic methodology has initiated means that a student's ability to speak a language is now assumed to be as important as his ability to read or write it.

One major problem which has always faced language teachers, whatever aspect of the language they are primarily concerned with, and which the discipline of linguistics has yet to resolve satisfactorily, is the question of how much and which part of a language should be taught to students at any given level. Obviously a perfect command of a second language is an ideal goal. Research into second language acquisition has shown that it is highly unlikely that an adult learner will ever achieve this level of perfection, so the teacher is forced to decide how much of a language should be learnt by any given group of students and how much will be within their capabilities. It is in this problem of selection within the language for specific teaching purposes that I am primarily interested.

This thesis is an attempt to find a method by which a teacher could decide how many and which grammatical structures of a language his students should be able to perform actively in order to satisfy their own specific needs. Active performance is defined here as the student's ability to produce the language either in spoken or written form; passive command is defined as aural comprehension and reading ability.

In this study the author was dealing with language as a tool, and

was therefore concerned with acceptable minimums for functional purposes; in a university situation the study would be concerned with the language a student would need specifically to acquire the content technology he wanted to study. Obviously, a student will be better able to study if he also has sufficient command of the language to make his social relationships relatively easy. How much additional knowledge of the language a student would need to become immersed in the culture he is visiting is a question which needs further study and one which does not come within the scope of this thesis.

The method presented in this thesis could only establish the basic functional minimum for a student in his work. What else should be taught is a problem for the individual institution to decide in the light of its own particular needs and aims.

1.2. Justification of the study

The main justification for this study is that as yet there is no really accurate, widely accepted, scientific method for assessing what level of active grammatical competence should be required of a student in any given situation. As will be seen in the review of the literature below there are widely differing opinions among teachers and scholars on the subject, very few with any sound scientific basis.

Recently a successful objective method has been worked out for assessing what passive competence any particular group of students needs. This may be done by using a general frequency count of the lexicon and grammatical structures of a language and teaching the most frequent items on the grounds that these will be of the most use. This method may be tied more

specifically to the needs of the student by using frequency counts of a language sample from the environment in which the student will use his language. In a university situation, where the language to be taught is used as the medium of instruction, a frequency count could be based on the speech of teachers in the students' field of study, and passive competence requirements could be based on that. The purpose of the present study was to illustrate a similar method for estimating active competence requirements with a frequency count of the speech of students who are studying successfully in the foreign language.

The author was interested specifically in university students who are required to take remedial training in English in order to use it as a medium of instruction. The hypothesis was threefold; it was assumed that a foreign student could study successfully with a less comprehensive active grammatical control than that of his American counterpart; secondly, that the grammatical structures used by the American would be more limited than one would expect; and finally that the grammatical competence required varies from one discipline to another.

As this was a pilot study, serving to illustrate a method rather than providing any definitive conclusions on what should be taught, it was confined to a comparison of a native speaker of English and a foreign student, both studying in the medium of English in the same university department at the same level. Because of the scope of the thesis, only the first two sections of the above hypothesis were considered; the third was included here because it was considered an important corollary.

A further justification for the study was that such a technique, if it proved workable, might lead to the limiting of the amount of English taught in remedial courses at the university level. It may be that at the moment

the student is required to learn more than is strictly necessary, which is a waste of his time and effort and that of the university. Certainly the planning of a syllabus for such a remedial course should be as objective as possible, and not merely based on an educated guess by the teacher or text book writer.

Finally, one of the major troubles with the scientific approach to language learning is that pattern practice drilling is demotivating. If we had any reliable way of separating a student's active and passive needs, the active needs could be taught by the pattern practice method, while passive command could be acquired by listening and intellectualization.

1.3. Review of the literature

A comprehensive review of the literature in this area is impossible because of the immense amount of research which has been done on language teaching in general and on the teaching of specific languages. These works range from research on and discussion of language teaching methodology, psychology, and curriculum design to classroom text books. The best this review of the literature can hope to do is illustrate some of the prevailing attitudes on the question of how much of a language should be taught at any particular level of study.

Despite extensive reading and search the author was unable to discover any really objective method for determining what grammatical constructions a student needs in his active repertoire in order to be able to use the language he is learning as a tool for study or work in a particular field.

'The obvious difference between learning a language in the way a native speaker does and being taught a language is the amount of control that is

exercised over the sample of the language to which the learner is exposed.' (Francis 1967). Francis's statement is based on the now widely accepted idea that acquisition of a second or foreign language is quite different from acquisition of the first, calling for more selectivity and a highly structured teaching situation.

The adult will not learn best by total unstructured immersion as the child does. Francis goes on to make a case for teaching the constructions of a language most frequently used by native speakers; 'an obvious conclusion is to select those features and those vocabulary items which occur more frequently than others and hence are presumably more useful and more necessary to the person who is learning to speak the language.' (Francis 1967). Francis bases his frequency counts on language samples from many different areas; teaching based on these might not give the student who wants to use the language as a tool for study or work the constructions and vocabulary items which will fill his own highly specialized needs. Also it has not been proved that a student's active and passive needs are the same and it is by no means certain that the most frequently heard constructions will be the most useful for the student to have active command of. Francis does not give any indication of how far down the frequency count a teacher should go in order to meet his students' needs.

In his work on language teaching, Lado (1964) emphasizes that a language teaching syllabus should be based on a contrastive analysis of the target language and the native language of the student. The items to be taught will be only the points of structural difference between the languages; structures which are analogous need not be taught, just meaningfully illustrated.

Lado's emphasis on contrastive analysis has had a considerable effect on recent language teaching materials. If a student were taught all the points

of difference between his native language and the target language, and given that he was able to make the necessary comparison between analogous structures, he would be virtually bilingual. If the time or scope of the course is in any way limited, the teacher will still have to select the most useful grammatical features to present; contrastive analysis just reduces the problem.

Lado points out that both scope and methodology must vary with the level at which the language is being taught. He goes on to say 'It is not clear that distinctions must necessarily be made for different professional groups and disciplines; but specialized vocabularies are of course necessary at the advanced level for these groups.' It is because so little work has been done on the structural needs of various groups of language students that Lado and others are unable to make definitive statements on the subject.

Fries (1945) distinguishes sharply between the active and passive needs of the student. For the beginner he advocates the teaching of one pattern for one situation; for example, he would teach going to for the future in English, not shall and will. For teaching passive command he suggests frequency counts as a basis for syllabus design. Fries does not say whether an active construction must be taught for every situation; nor does he indicate how a teacher could select the most useful active patterns to teach, if the time available is limited, or if the students have specialized needs.

Agard and Dunkel (1948) point out that the amount of language proficiency needed will vary according to the use the student will have for the language. Also, the relative command needed of each of the basic language skills will vary with the use to which the student will put the language. They do not suggest any objective system for assessing the student's needs.

In his discussion of the linguistic problems of overseas students Perren

(1967) makes the point that when we assess the linguistic competence of a student we must be careful to compare his performance with that of a native speaker and not with some subjective assumption of what a native speaker actually says. Many language teaching courses attempt to teach the entire grammatical system of a language regardless of whether all the available patterns are used by an average native speaker.

'Since it is impossible to teach the whole of a language, all methods must in some way or other, whether intentionally or not, select the part of it they intend to teach.' (Mackey 1967). Mackey believes that in teaching a foreign language there is a minimum which must be taught and there is plenty which can obviously be omitted; it is in the area between these two extremes that the process of selection really presents a problem. Mackey suggests several possible criteria for the selection of structures to be taught. As a basis for selecting structures of which the student should have a passive command, he suggests the use of a frequency count. For the selection of structures for active command, he emphasizes the importance of eliminating duplicate structures; another basis he gives for the selection of structures is the relative number of fillers available for the slots in a set of duplicate constructions from which one must be selected.

Finocchiaro (1964) says that a foreign language curriculum should be designed so that students will have a good foundation on which to build greater skill and to specialize in any aspect of the language they choose. She does not really give any indication of how broad this initial base will have to be. She gives several major aims of a curriculum at any level which cover the progressive ability of the student to perform in the target language as he would in his own. This obviously a desirable goal but it may be too unspecific and too ambitious for the student who wishes to use the

language as a tool.

While several of the above mentioned authorities have stressed the need for selectivity in language teaching, and have suggested tentative criteria for selection, none of them has devised any really objective way of assessing the needs of various groups of students in the area of oral proficiency. The method suggested in this thesis, if applied in a statistically significant way, might help to provide an objective system for the selection of structures that a given student will find most useful in his active repertoire.

1.4. Method

The purpose of this study was to illustrate an objective method of assessing what active grammatical constructions would be needed by any group of students who wanted to use the language as a tool for study or work. It must be emphasized that this was a pilot study to illustrate a method and not a statistically valid assessment of what constructions should be taught.

The grammatical model for English which was used as the basis for analysis in this study was devised by Engler and Hannah (1965) at Kansas State University for use in a research project to establish norms for the speech of children.

Two students were selected for the study; one a Yugoslavian M.A. candidate in the Department of Nuclear Engineering at Kansas State University, and the other a native speaking American studying the same subject at the same level; as far as it is possible to judge from grades, both were equally successful. In order to analyze their active ability in English, two corporuses were needed from each, one spoken and one written. The method used for

elicitation of the spoken corpus needs some discussion and justification.

The elicitation technique chosen was a structured personal interview; the questions (Appendix 1.) asked related to the students' field of study. There were several reasons for choosing this technique as opposed to some other. The purpose of the test was to discover, as accurately as is possible with any sampling technique, what the active, oral linguistic competence of the subjects was. It was neither possible nor desirable to use an itemized test of the sort discussed in detail by Lado (1961); that form of test is primarily useful for assessing whether or not the student has learnt what has been presented to him in a classroom situation. In this case no test of learning was involved and it was not possible to predict what structures should be tested for. Testing for every structure in the language would have been far too cumbersome.

The author was specifically interested in English used as a tool in the field of Nuclear Engineering; she therefore wanted to assess the students' ability to perform in English within the context of their own subject area; for this reason there was no attempt made to delexicalize the test. The questions were of a general nature within the specific field of nuclear engineering. The questions were worked out in cooperation with one of the students' instructors, who assured the author that they would present no technical problems to students at their level.

There are always certain objections to the use of the personal confrontation technique for elicitation of language samples or for testing purposes on the grounds that it is traumatic for the student and that it is impossible to control the bias of the interviewer. Despite these objections the author chose a live interview rather than a tape recorded one because she wanted to elicit the maximum response to each question; a

prerecorded set of questions would have necessitated an arbitrary decision on how long to allow for each answer. The author did not feel that with just two subjects the factors of fatigue and irritation on the part of the interviewer would be significant. One additional difficulty with the interview technique is that the occurrence of certain structures such as questions will be limited; because of this, the lack of such structures will not be regarded as significant in the analysis.

The spoken corpus (Appendix 2.) elicited from each student was ten minutes long. It was recorded, and the recording was then transcribed in standard orthography. The corpus was segmented on the basis of syntactic units, a syntactic unit being defined as a main clause plus its subordinates, and a clause being defined as a construction of a subject plus a finite verb. Each clause was analyzed on the basis of certain criteria, the sentence type (Appendix 4.), the verb expansion (Appendix 5.), structural complexity, this being the types of subordinate clauses used, and the average and maximum number of subordinate clauses dependant on a main clause. The number and form of prepositional phrases used was discovered, and finally a tabulation of mistakes and incomplete utterances was made. This is obviously not a complete grammatical analysis of the corpus but it is enough to discover the basic structures used. Obviously with the same data it would be possible to tabulate any syntactic or phonological parameters of interest. The two analyses were compared on each of the parameters, and both were compared with the model for English to discover what available constructions were rarely or never used by either student.

The written corpus (Appendix 3.) used in each case was a research paper, the papers having been written at the same time on the same general subject. The same analytic criteria were used with minor modifications for the written

corpus.

The corpus used here was obviously only a sample; because a student did not use a construction here does not necessarily mean that he is not capable of using it; this is not a serious handicap because this study was seeking to discover what constructions a student actually used within the context of his study, not those which he might have to be prompted to produce.

2. The spoken corpuses

2.1. Analysis of the spoken corpuses

Both corpuses are analyzed here according to the criteria discussed above. A comparison of the two will be undertaken in 2.2. The corpus of the native speaker will be referred to as N., and that of the non-native speaker as NON-N.

2.1.1. Sentence types

NON-N. Sentence type Ia; 45 in main clauses, 17 in subordinates.

e.g. It was partially by design and partly by accident.

N. Sentence type Ia; 35 in main clauses, 19 in subordinates.

e.g. It's quite safe to go into the area.

N. Sentence type Ic; None in main clauses, 1 in subordinate.

e.g. Much of the dirt and minerals in the ground become radioactive.

N. Sentence type Id; 1 in main clauses, none in subordinates.

e.g. It seems classified.

NON-N. Sentence type II; 9 in main clauses, 7 in subordinates.

e.g. We should go back to the chemistry of elements.

N. Sentence type II; 2 in main clauses, 8 in subordinates.

e.g. which would come from uranium used in the bomb.

NON-N. Sentence type IIIa; 21 in main clauses, 18 in subordinates.

e.g. I can continue to work on the Ph.D.

N. Sentence type IIIa; 42 in main clauses, 26 in subordinates.

e.g. so it does have some good uses.

- N. Sentence type IIIb; 1 in main clauses, 3 in subordinates.
e.g. They are testing a nuclear weapon.
- N. Sentence type IVa; 2 in main clauses, none in subordinates.
e.g. I can't imagine them setting the bomb off.
- NON-N. Sentence type V; 5 in main clauses, 8 in subordinates.
e.g. The bureaucratic process is worked out fairly well.
- N. Sentence type V; 5 in main clauses, 6 in subordinates.
e.g. First of all maybe decay needs to be explained.

2.1.2. Verb expansions

- NON-N. Verb expansion 1; 60 in main clauses, 34 in subordinates.
e.g. If I look ahead into the year two thousand.
- N. Verb expansion 1; 55 in main clauses, 39 in subordinates.
e.g. This is probably the fact.
- N. Verb expansion 2; 6 in main clauses, 2 in subordinates.
e.g. I don't know the truth.
- NON-N. Verb expansion 3; 3 in main clauses, 2 in subordinates.
e.g. so I'm developing now an experimental apparatus.
- N. Verb expansion 3; none in main clauses, 5 in subordinates.
e.g. that they are testing a nuclear weapon.
- NON-N. Verb expansion 4; 2 in main clauses, 3 in subordinates.
e.g. Actually I had chosen either Kansas State or Penn State.
- N. Verb expansion 4; 2 in main clauses, 1 in subordinates.
e.g. who has not developed say a bomb.
- NON-N. Verb expansion 6; 13 in main clauses, 11 in subordinates.
e.g. I couldn't get a good project to work on.

- N. Verb expansion 6; 22 in main clauses, 13 in subordinates.
 e.g. I can't imagine them setting the bomb off.
- NON-N. Verb expansion 8; 1 in main clauses, none in subordinates.
 e.g. This choice of Kansas State University may not have been the best.
- N. Verb expansion 8; none in main clauses, 1 in subordinates.
 e.g. The whole mass of these atoms would have given off a lot of particles.
- NON-N. Verb expansion 10; 1 in main clauses, none in subordinates.
 e.g. It is certainly going to be one of the prime sources of energy.
- N. Verb expansion 10; 2 in main clauses, 4 in subordinates.
 e.g. First of all, maybe decay needs to be explained.

2.1.3. Sentence complexity

- NON-N. Number of main clauses; 80.
 e.g. It was partially by accident and partly by design.
- N. Number of main clauses; 86.
 e.g. I think.
- NON-N. Subordinate noun clauses in the subject slot; 3.
 e.g. Actually what I am most interested in is the application.
- N. Subordinate noun clauses in the subject slot; 1.
 e.g. What I'm trying to say is . . .
- NON-N. Subordinate noun clauses in the object slot; 12.
 e.g. You see that there is a fundamental difference between the two kinds of waves.

N. Subordinate noun clauses in the object slot; 20.

3.z. so I don't think we need to worry too much.

NON-N. Subordinate noun clauses in the complement slot; 6.

e.g. so this is how it works.

N. Subordinate noun clauses in the complement slot; 8.

e.g. due to the fact that most of the dirt and minerals in the ground become radioactive.

NON-N. Subordinate adjective clauses; 19.

e.g. There are a few people that could guide me to further research.

N. Subordinate adjective clauses; 23.

e.g. It would be difficult for any country who has not developed say a bomb.

NON-N. Subordinate adverb clauses; 10.

e.g. because what the fundamental particle is, is not quite clear yet.

N. Subordinate adverb clauses; 13.

e.g. It could be a very strong disadvantage if such a treaty is not worked out adequately.

NON-N. Average number of subordinate clauses per main clause; 1.

e.g. You see that there is a fundamental difference between the two kinds of waves.

N. Average number of subordinate clauses per main clause; 1.

e.g. It would be difficult for any country who has not developed say a bomb.

NON-N. Maximum number of subordinate clauses per main clause; 3.

e.g. Actually, when you look into the solutions of the equations that go on, you see that there is a fundamental difference between the two waves.

N. Maximum number of subordinate clauses per main clause; 5.

e.g. What I'm trying to say is, I guess, that if you calculated the explosion such that it were underground, that the effects just reached the surface of the ground, so you remove only the ground you want to remove, fallout, I think, would be kept to a minimum.

2.1.4. Prepositional phrases

Relator-axis constructions in which the axis is a noun phrase and the whole construction functions as an adjectival or adverbial are regarded as prepositional phrases. This means that in some cases relators of more than one word are regarded as prepositions.

Prepositional phrases are tabulated according to the prepositions that begin them.

NON-N. off; 1.

e.g. off this line

NON-N. of; 33.

e.g. of some foreign countries

N. of; 42.

e.g. of time

NON-N. by; 9.

e.g. by the U.S.

N. by; 2.

e.g. by this

NON-N. for; 10.

e.g. for atomic energy

N. for; 13.

e.g. for peaceful purposes

NON-N. from; 7.

e.g. from the United States

N. from; 6.

e.g. from the radioactivity

NON-N. on; 4.

e.g. on the material

N. on; 6.

e.g. on the material

NON-N. before; 1.

e.g. before the year two thousand

NON-N. in; 18.

e.g. in that field

N. in; 18.

e.g. in that sort of period

NON-N. at; 4.

e.g. at our University

N. at; 4.

e.g. at the very surface

NON-N. into; 5.

e.g. into the affairs

N. into; 5.

e.g. into the air

NON-N. to; 4.

e.g. to further research

N. to; 13.

e.g. to many thousands of years

NON-N. through; 1.

e.g. through this national agency

NON-N. between; 1.

e.g. between the two waves

NON-N. about; 1.

e.g. about selling them

N. about; 2.

e.g. about developing more bombs

NON-N. with; 2.

e.g. with the same number

N. with; 5.

e.g. with these radioactive materials

N. as; 1.

e.g. as a general or a long term practice

N. above and below;

e.g. above and below the ground

N. under; 1.

e.g. under the eyes

N. in and around; 1.

e.g. in and around the nucleus

2.1.5. Incomplete utterances and mistakes.

NON-N. Number of incomplete utterances; 17.

e.g. At our University, there was no . . .

N. Number of incomplete utterances; 6.

e.g. They are us . . .

The distinction between complete and incomplete utterances is, of course, a difficult one. For this study the procedure adopted was to assume a favorite sentence pattern for English of subject and predicate. A complete predicate is definable in terms of the Engler-Hannah sentence types. Certain utterances that are not complete sentences according to this definition are nevertheless complete utterances. These are minor sentences, complete in their contexts, and established by context and intonation. Utterances that were not complete by either test were regarded as incomplete utterances.

Mistakes will be discussed in 2.2. below.

2.2. Comparison and contrast

2.2.1. Discussion of sentence types

For this study to have any application for language teaching, the method illustrated here would have to be applied to a statistically significant number of subjects. Comments in the following section on the application of the findings of this study to teaching serve to illustrate the method, and should not be regarded as conclusive.

Sentence type Ia e.g. The man's a professor.

Both subjects made considerable use of this subtype; the non-native speaker used it 62 times and the native 54 times. The use of this form may have been encouraged by the elicitation technique, but the present tense descriptive situation is one that might well be of considerable use in the delivery of oral reports, and in technical discussion between a student and his teachers. It is obvious from this sample that type Ia is an important construction and would therefore occupy an important place in a language syllabus.

Sentence type Ib e.g. He gets angry.

This type was used by neither subject.

Sentence type Ic e.g. He becomes a professor.

This construction was used once by the native speaker and never by the non-native.

Sentence type Id e.g. He looks a fright.

This construction was used once by the native speaker and never by the non-native.

Sentence type Ie e.g. Sugar tastes sweet.

This construction was used by neither subject.

Sentence type If e.g. He weighs two hundred pounds.

This construction was used by neither subject.

It is interesting that although Type I sentences accounted for roughly one third of the corpora, the distribution was heavily weighted in favor of constructions using BE. It might well be possible to teach only type Ia constructions. The successful non-native speaking student did not use any other subtypes of type I. The heavy use of type Ia would indicate that this construction should be carefully taught, as imperfect knowledge of this would lead to numerous errors.

Sentence type II e.g. He works.

This construction was used 16 times by the non-native and 10 times by the native. While this is a significant construction, it is of less importance than type I.

Sentence type IIIa e.g. I see him.

This construction was used 39 times by the non-native and 68 times by the native. This was one of the most frequently used sentence types and therefore like type Ia would require considerable attention in teaching. It is interesting that the native used it almost twice as much as the non-

native; in fact for the native it was the most important construction, while for the non-native type Ia was most important. In planning a syllabus the greatest emphasis would be placed on type Ia; it would take precedence over type IIIa because it is the usage of the non-native speaker that is of primary interest. Of all the possible theoretical bases for syllabus design the one taken as the basis for this study was that the portion of the language in the active repertoire of a successful non-native student would be adequate for any other non-native wishing to study in the same field through the medium of English. This is why the usage of the non-native was of primary interest throughout.

Sentence type IIIb e.g. I enjoy reading.

 This sentence type was used 4 times by the native and not at all by the non-native.

Sentence type IIIc e.g. He gave a present to his wife.

This sentence type was used by neither subject.

Sentence type IIIId e.g. They elected him president.

This sentence type was used by neither subject.

Sentence type IIIe e.g. He had them cleaned.

This sentence type was used by neither subject.

The absence of the last three constructions would indicate that neither constructions using the indirect object, nor constructions using two direct objects would have to be taught. It would also appear that constructions employing causative verbs could be omitted. Transitive verbs taking the ing form as object were used only by the native speaker and would therefore not be taught. As with type I sentences almost the entire usage of both subjects was confined to the first subtype, and it is only the first subtype in both cases that would have to be taught.

Sentence type IVa e.g. I saw him get angry.

This construction was used twice by the native speaker and not at all by the non-native, and is therefore of little significance.

Sentence type IVb e.g. He wants me to go.

This construction was used by neither student.

Sentence type V e.g. The window was broken.

This construction was used 13 times by the non-native and 11 by the native. This construction was the third most frequently used and would therefore be important for teaching purposes.

Out of a total of 15 subtypes the native speaker used 8, and the non-native only 4. Obviously on the basis of sentence types the non-native has a more limited command of structure; but it is significant that the four subtypes used by the non-native were also most heavily used by the native.

It is also interesting that the native speaker fell short of using the maximum available constructions. Based on this analysis, the constructions to be taught would be Ia, IIIa, II and V; the order here indicating their relative importance.

2.2.2. Discussion of verb expansions

Verb expansion 1 e.g. He goes home.

The non-native speaker used this expansion 94 times and the native 94 times. This was the most heavily used expansion, and would therefore require the greatest emphasis in teaching.

Verb expansion 2 e.g. He does go.

This expansion was used 8 times by the native, and not at all by the non-native. For the native speaker this was the third most frequently used expansion.

Verb expansion 3 e.g. He was going home.

This expansion was used 4 times by the non-native and 5 times by the native.

Verb expansion 4 e.g. He has gone home.

This expansion was used 5 times by the non-native and 3 times by the

native. Expansions 3 and 4 tied for the third most frequent by the non-native, the position filled by expansion 2 for the native.

Verb expansion 5 e.g. He had been going home.

This expansion was used by neither subject.

Verb expansion 6 e.g. He will go home.

This expansion was used 24 times by the non-native and 35 times by the native, and was therefore the second most important expansion for them both.

Verb expansion 7 e.g. He will be going home.

This expansion was used by neither subject.

Verb expansion 8 e.g. He will have gone home.

This expansion was used once by the non-native and once by the native, which makes it relatively insignificant.

Verb expansion 9 e.g. He would have been going home.

This expansion was used by neither subject.

Verb expansion 10 e.g. He is in a position to go home.

This expansion was used once by the non-native and 6 times by the native; again this would not be taught as it is used little by the non-native.

Verb expansion 11 e.g. He will be able to go home.

This expansion was used by neither subject.

Verb expansion 12 e.g. He will have to be able to go home.

This expansion was used by neither subject.

Out of a total of 12-verb expansions, 7 were used by the native and 6 by the non-native. Expansion 1 was most important for both and expansion 6 second, for the non-native 3 and 4 assumed third place, 2 assumed third place for the native. For teaching purposes, then, 1 would be most important, then 6, then 3 and 4. Expansions 8 and 9 were used so infrequently that they might be omitted along with those which did not occur at all for the non-native if the teacher were really short of time.

2.2.3. Discussion of sentence complexity.

There was no significant difference between the two subjects in the relative frequency with which they used the various types of subordinate clause. The native was capable of a greater maximum number of subordinates per main clause, although his maximum, which was cited in 2.1.3. above, is

not completely correct grammatically, suggesting that this was a little beyond his maximum accurate complexity. It is obvious from the heavy use of subordinate clauses that some of the methods of conjoining would have to be taught.

2.2.4. Discussion of prepositional phrases

Both subjects made considerable use of prepositional phrases. The most frequently used prepositions were in, of, with, to, on, from, for, at, into, and by; they would therefore be the most valuable to teach. It is obvious that the prepositional phrase in general is an important construction which would have to be carefully taught.

2.2.5. Discussion of incomplete utterances and mistakes

The non-native had twice as many incomplete utterances as the native; but neither had a surprisingly large number in view of the fact that this was oral. In most cases both subjects seemed to have incomplete utterances when they felt that what they were saying was badly expressed or that the idea was not coming over well. The non-native did occasionally seem at a loss for a lexical item, but rarely for a grammatical one.

Mistakes in both cases were so few as to be insignificant, although the non-native did have several mistakes in subject-verb concord, and the occasional misuse of verb expansions. The scarcity of mistakes would seem to indicate that the non-native was quite comfortable with the constructions in his repertoire and was not trying unsuccessfully to use constructions he knew imperfectly.

2.2.6. Conclusion

The comparison of the two spoken corpuses does show the non-native to be slightly more limited in his usage than the native; perhaps more interesting is the number of constructions used by neither. A language teaching syllabus based on the usage of the non-native would be quite small compared to one that aimed to teach the whole language.

3. The written corporuses

3.1. Analysis of the written corporuses

The written data has been analyzed according to the same criteria as the spoken data. One difficulty which occurred in the written material was the analysis of constructions consisting of an auxiliary BE plus the past participle of the verb where the optional by + agent, and/or with + means, which would make the construction clearly passive, were absent. In cases where this was not clear the sentence was arbitrarily regarded as a type I with an adjectival complement. A summary contrast of the spoken and written corporuses is given in 4.2. below.

3.1.1. Sentence types

NON-N. Sentence type Ia; 16 in main clauses, 6 in subordinates.

e.g. as the core is thin.

N. Sentence type Ia; 28 in main clauses, 10 in subordinates.

e.g. The machine design study is part of a preliminary study.

NON-N. Sentence type Id; none in main clauses, 1 in subordinates.

e.g. that have proven satisfactory performance.

NON-N. Sentence type II; 3 in main clauses, 3 in subordinates.

e.g. that no decisive temperature limit exists.

N. Sentence type II; 4 in main clauses, 4 in subordinates.

e.g. The sodium then moves up through the core.

NON-N. Sentence type IIIa; 10 in main clauses, 4 in subordinates.

e.g. Fast breeder fuel economics requires high specific power.

- N. Sentence type IIIa; 16 in main clauses, 6 in subordinates.
 e.g. which follow well established conventional electrical power plant designs.
- NON-N. Sentence type V; 30 in main clauses, 7 in subordinates.
 e.g. The plant has to be designed for reliable operation.
- N. Sentence type V; 15 in main clauses, 5 in subordinates.
 e.g. until more time has been allowed for feedback from other sections.

3.1.2. Verb expansions

- NON-N. Verb expansion 1; 42 in main clauses, 9 in subordinates.
 e.g. as the mechanical properties deteriorate continuously.
- N. Verb expansion 1; 42 in main clauses, 18 in subordinates.
 e.g. The M.D. study is presented in two main parts.
- NON-N. Verb expansion 2; none in main clauses, 1 in subordinates.
 e.g. as the vented fuel bin design does not require excessive strength.
- NON-N. Verb expansion 4; 3 in main clauses, 3 in subordinates.
 e.g. after the temperature limitations have been set.
- N. Verb expansion 4; 2 in main clauses, 1 in subordinates.
 e.g. The general primary design has been patterned.
- NON-N. Verb expansion 6; 12 in main clauses, 8 in subordinates.
 e.g. The main parameters of the design shall be established.
- N. Verb expansion 6; 17 in main clauses, 5 in subordinates.
 e.g. Since all net flow of gases would be to the personnel area.
- NON-N. Verb expansion 10; 2 in main clauses, none in subordinates.
 e.g. The plant has been designed for reliable operation.

N. Verb expansion 10; 2 in main clauses, 1 in subordinates.

e.g. The authors wish to emphasize here.

3.1.3. Sentence complexity

NON-N. Number of main clauses; 59.

e.g. The plant has been designed for reliable operation.

N. Number of main clauses; 63.

e.g. The tank concept involves a primary tank containing the primary coolant.

NON-N. Subordinate noun clauses in the subject slot; 2.

e.g. To the design basis the statement should be added that credit shall be taken for the formation of the central void.

NON-N. Subordinate noun clauses in the object slot; 1.

e.g. It is felt that in subsequent stages of design more attention should be paid to some safety aspects in the core thermal performance.

N. Subordinate noun clauses in the object slot; 3.

e.g. The authors wish to emphasize here that this study is only a preliminary one.

NON-N. Subordinate adjective clauses; 6.

e.g. The materials selected have been limited to those that have proven satisfactory performance in the cool fast reactor environment.

N. Subordinate adjective clauses; 9.

e.g. A 58 foot diameter stainless steel cylindrical tank, which is about 47 feet high.

NON-N. Subordinate adverb clauses; 12.

e.g. after the temperature limitations have been set.

N. Subordinate adverb clauses; 14.

e.g. since the final decision rests with the appropriate section.

NON-N. Average number of subordinate clauses per main clause; 1.

e.g. It is felt that in subsequent stages of design more attention should be paid to some safety aspects in the core thermal performances.

N. Average number of subordinate clauses per main clause; 1.

e.g. The authors wish to emphasize here that the study is only a preliminary one.

NON-N. Maximum number of subordinate clauses per main clause; 2.

e.g. It is evident that no decisive temperature limit exists as the mechanical properties deteriorate continuously.

N. Maximum number of subordinate clauses per main clause; 2.

e.g. The containment of the primary coolant loop applies a tank concept in which the primary sodium is cooled in a 58 foot diameter stainless steel cylindrical tank, which is about 47 feet high.

3.1.4. Prepositional phrases

NON-N. of; 55.

e.g. of the central void formation

N. of; 53.

e.g. of the coolant

NON-N. for; 27.

e.g. for the calculation

N. for; 18.

e.g. for simplicity

NON-N. in; 22.

e.g. in high specific power fuel

N. in; 26.

e.g. in relatively thin vessel walls

NON-N. by; 21.

e.g. by redistribution

N. by; 8.

e.g. by personnel

NON-N. as; 6.

e.g. as a successful demonstration

N. as; 5.

e.g. as detailed core design

NON-N. with; 7.

e.g. with the observation

N. with; 10.

e.g. with a rule

NON-N. to; 16.

e.g. to 100% theoretical density

N. to; 7.

e.g. to a sudden power change

NON-N. across; 2.

e.g. across the core

NON-N. at; 7.

e.g. at the hot spot

- N. at; 5.
e.g. at most operating temperatures
- NON-N. on; 7.
e.g. on vented fuel pin models
- N. on; 3.
e.g. on the figures
- NON-N. from; 3.
e.g. from the vent
- N. from; 10.
e.g. from a figure
- NON-N. outside; 1.
e.g. outside the heat transfer and thermal hydraulics field
- N. outside; 1.
e.g. outside the reactor building
- NON-N. through; 1.
e.g. through the core
- N. through; 5.
e.g. through a duct
- NON-N. between; 2.
e.g. between some advanced nickel based alloys and stainless steel
- NON-N. below; 2.
e.g. below 1800 degrees centigrade
- NON-N. above; 1.
e.g. above 1800 degrees centigrade
- N. above; 2.
e.g. above the active core

- N. as for; 1.
e.g. as for its part
- N. than; 3.
e.g. than the external pressure
- N. such as; 1.
e.g. such as steam turbine generators
- N. under; 1.
e.g. under the direction
- N. throughout; 1.
e.g. throughout the study
- N. into; 4.
e.g. into the plain
- N. around; 1.
e.g. around the centrally located reactor vessel
- N. along with; 1.
e.g. along with the fuel handling
- N. among; 1.
e.g. among other details
- N. over; 1.
e.g. over the primary tank
- N. upon; 1.
e.g. upon geographical location
- N. during; 2.
e.g. during refueling

3.1.5. Incomplete utterances and mistakes

Incomplete utterances; none.

Mistakes; none.

3.2. Comparison and contrast

3.2.1. Discussion of sentence types

This discussion is subject to the same limitations as those described in 2.2.1. above. The two corpuses were approximately the same length. Possible reasons for the variation in the number of clauses will be discussed below.

Sentence type Ia e.g. The man is tall.

The non-native used this sentence type 22 times, and the native 38 times. For the native this was the most important construction; the fact that the non-native's most frequent construction was type V seems to indicate a stylistic difference, although this is an entirely subjective observation. The non-native seems to employ the classic style of scientific writing which avoids direct reference. Because type Ia was frequently used by the non-native it would be an important construction for teaching purposes.

Sentence type Ib e.g. He gets sick.

This construction was used by neither subject.

Sentence type Ic e.g. He becomes a professor.

This construction was used by neither subject.

Sentence type Id e.g. He seems happy.

This type was used once by the non-native, and not at all by the native. As its frequency was so low it could perhaps be ignored for teaching purposes.

Sentence type Ie e.g. Lemons taste sour.

This type was used by neither subject.

Sentence type If e.g. He weighs 200 pounds.

This sentence type was used by neither subject.

The use of type I sentences was confined almost entirely to type Ia making this the only important sub-type for teaching purposes.

Sentence type II e.g. He works well.

The non-native used this sentence type 8 times, and the native 6 times. For the native it was the least frequently used of those he used at all; the same was true for the non-native, except for his isolated use of Id.

Sentence type IIIa e.g. I see him.

This construction was used 14 times by the non-native, and 22 times by the native. For the native it was the second most important construction, and for the non-native it was the third.

Sentence type IIIb e.g. I enjoy reading.

This type was used by neither subject.

Sentence type IIIc e.g. He gave a present to his wife.

This sentence type was used by neither subject.

Sentence type IIIId e.g. They elected him president.

This construction was used by neither subject.

Sentence type IIIe e.g. He had them mended.

This sentence type was used by neither subject.

As with type I, usage was restricted very largely to subtype a; only sentence type IIIa would have to be taught.

Sentence type IVa e.g. I heard him singing.

This construction was used by neither subject.

Sentence type IVb e.g. He wants me to go.

This construction was used by neither subject.

As neither type of concatenating construction was used by the non-native, it would seem that these could be ignored for teaching purposes.

Sentence type V e.g. The window was broken.

This sentence type was used 37 times by the non-native and 20 times by the native. This construction was the most important construction for the non-native, and third in importance out of the four categories used by the native.

Out of a total of 15 subtypes the native speaker used 4 and the non-native 5; the additional construction of the non-native only occurred once, meaning that the two were almost equal in terms of the number of subtypes used, although the frequency with which they used each type differed. Both fell far short of the maximum possible usage. Using the performance of the native as the basis for what constructions should be taught, sentence types V, Ia, IIIa, and II would be taught in that order, although a reversal of V and Ia would probably only bring about a stylistic change.

3.2.2. Discussion of verb expansions

Verb expansion I e.g. He went home.

The non-native used this expansion 49 times and the native 60. This was by far the most important expansion for both and would have top priority

in teaching.

Verb expansion 2 e.g. He did not go home.

This expansion was used once by the non-native and not at all by the native; because of its infrequency it would have little significance in teaching.

Verb expansion 3 e.g. He was going home.

This expansion was used by neither subject.

Verb expansion 4 e.g. He had gone home.

This expansion was used 6 times by the non-native and 3 times by the native. For the non-native it was the third most important construction out of the 5 used, for the native it occupied third place together with expansion 10.

Verb expansion 5 e.g. He had been going home.

This expansion was used by neither subject.

Verb expansion 6 e.g. He must go home.

This construction was used 20 times by the non-native and 22 times by the native; for both it was second in importance to expansion 1.

Verb expansion 7 e.g. He would be going home.

This expansion was used by neither subject.

Verb expansion 8 e.g. He would have gone home.

This expansion was used by neither subject.

Verb expansion 9 e.g. He would have been going home.

This expansion was used by neither subject.

Verb expansion 10 e.g. He wanted to go home.

This expansion was used twice by the non-native and 3 times by the native. It was the least frequent of the constructions used by both.

Verb expansion 11 e.g. He will be able to go home.

This construction was used by neither subject.

Verb expansion 12 e.g. He will have to be able to go home.

This construction was used by neither subject.

Out of a total of 12 verb expansions, 5 were used by the non-native and 4 by the native; as with the sentence types the one extra used by the non-native was only an isolated usage and perhaps could be omitted for teaching

purposes.

3.2.3. Discussion of sentence complexity

There was practically no difference between the two subjects in usage of clause types or in maximum possible conjoining; neither used a noun clause in the complement slot and the native did not use a noun clause in the subject slot.

It is interesting to note that while the corpuses were approximately the same length, the non-native had a smaller total number of clauses; this may be partly due to the fact that the native had a slightly greater sentence length, although this has not been checked objectively.

One feature of the written corpus which requires comment is the very large number of complex noun phrases, often using a non-finite form of the verb, particularly the past participle, e.g. The usual X curve employed for the calculation of temperatures in the fuel pellet. This type of construction used instead of a clause in some instances may account for the small number of clauses in the written corpus as compared to the spoken. Another factor which contributed to the relatively small number of clauses in the written corpus was the large number of adjectives used, e.g. This mechanical design study is part of a preliminary study for the Kansas State University Fast Breeder Reactor (KSUFR), a 1000 MWe sodium cooled, mixed uranium-plutonium oxide fueled fast breeder reactor with a prescribed thermal efficiency of one third.

3.2.4. Discussion of prepositional phrases

Both subjects made considerable use of prepositional phrases; the non-native more than the native, another factor that may account for his using fewer clauses. The prepositions used were varied; of, for, with, in, from, to, at, on and by were the most commonly used.

3.2.5. Conclusion

In this corpus the native proved to be slightly more limited than the non-native in his use of constructions; both used only a fraction of the available constructions. If this proved true statistically, which intuitively seems unlikely, the problem would be whether to teach the usage of the non-native or that of the native, which would be lower. It would probably be best to use the lowest factor, particularly because the constructions the non-native uses above and beyond that are very infrequent.

4. Conclusions

4.1. Comparison of spoken and written corpuses

The comparison attempted here will be in terms of relative frequencies. A comparison of numerical values would be difficult since the total number of clauses used by each subject was considerably less in the written than in the spoken corpus. In the tabulations below, constructions are listed in descending order of frequency.

4.1.1. Sentence types

	Spoken	Written
NON-N.	Ia	V
	IIIa	Ia
	II	IIIa
	V	II
		Id
	Spoken	Written
N.	IIIa	Ia
	Ia	IIIa
	V	V
	II	II
	IIIb	
	Iva	
	Ic, Id	

It is interesting to note that the same four types occur in different orders at the top of all the frequency lists; reference to the numerical analysis shows that those four types were the only ones significantly used. As has been stated before, a language teaching syllabus would be based on the usage of the non-native; in this case the frequencies of the native speaker would back up decisions made on the basis of the usage of the non-native.

4.1.2. Verb Expansions

	Spoken	Written
NON-N.	1	1
	6	6
	4,3	4
	8	10
	10	2

	Spoken	Written
N.	1	1
	6	6
	2	4,10
	10	
	3	
	4	
	8	

The comparative pattern here is not quite so straightforward as it was for the sentence types, although it is interesting to observe that in each frequency list expansions 1 and 6 are the top two in that order. Both subjects were more restricted in their written corpora, the native markedly so. The relative usage was almost the same for both subjects in the written corpora; the non-native had only an isolated use of expansion 2. In the spoken corpora the major difference was the native's use of expansion 2 which did not occur in the non-native's spoken corpus, also expansion 10 was far more important for the native than for the non-native.

4.1.3. Sentence complexity

	Spoken	Written
NON-N.	Main	Main
	Adjective clause	Adverb clause
	Noun clause object	Adjective clause
	Adverb clause	Noun clause subject
	Noun clause complement	Noun clause object
	Noun clause subject	

	Spoken	Written
N.	Main	Main
	Adjective clause	Adverb clause
	Noun clause object	Adjective clause
	Adverb clause	Noun clause object
	Noun clause complement	
	Noun clause subject	

Both subjects were more restricted in the written corpus than the spoken; in the spoken they both made use of all the constructions in the same order of frequency. In the written corpus the native did not use the noun clause complement construction while the non-native did.

4.1.4. Prepositional phrases

The use of prepositional phrases for both subjects was more frequent in the written corpus; it would seem that the frequent use of this type of construction made for a smaller total number of clauses in both written corpuses.

4.1.5. Incomplete utterances and mistakes

All mistakes and incomplete utterances appeared in the spoken corpuses. Presumably any mistakes made in the written corpuses had been corrected by the subjects themselves.

4.1.6. Conclusions

The most interesting feature to emerge from the above comparison is the fact that the written material was considerably less varied than the spoken; it is also interesting to note that the non-native was slightly less restricted than the native.

4.2. Overall conclusions

As was stated at the outset of this study, the project was designed to

describe a method which could assist the teacher in his selection of grammatical structures to be taught for active performance. The hypothesis described in the introduction can not be proved by this study because the language samples were not large or varied enough to be statistically significant.

So far as the sample used is concerned, the section of the initial hypothesis which stated that the foreign student using English as a medium of instruction at the university level would need a less comprehensive control of active grammatical patterns than his native counterpart is not completely supported. Exactly the reverse proved true for the written performance, and although the non-native was more restricted in his spoken grammatical patterns the difference was not very great.

The second section of the hypothesis which stated that the native speaker would have a more limited control of grammatical structures than might intuitively be supposed was borne out by the study. The native speaking subject used far less than the maximum constructions delineated by the system of analysis employed.

The findings of this study do serve as an indication that the number of constructions that would have to be taught to a group of non-native speaking students attempting to acquire the same content technology would be limited in comparison with the maximum possible for the language. It would therefore seem useful to undertake a statistical study using the method illustrated in the present work. To do this it would probably be necessary to analyze the performance of every successful non-native speaking student in the university or similar institution for which a syllabus was being planned and find the average usage. It would also be interesting to bear in mind the disciplines from which the subjects came and test the third section of the initial hypothesis of this study which related to the supposed different

performance required of students working in different disciplines.

If the findings of this study were borne out statistically, syllabus designs could be based objectively on the findings. If the university or similar institution were forced to employ one syllabus for all students, the syllabus would have to be based on the average requirements for all fields of study. The only possible drawback to this is that the average might not be sufficient for students in certain disciplines such as philosophy. The ideal situation would probably be for the university to evaluate the needs of the students on the basis of their field of study and teach each group according to the findings.

APPENDICES

APPENDIX 1

A sample of questions used

Why did you come to Kansas State University?

Describe any of your present research interests.

What will you do after completing your degree?

What is the future of nuclear power?

What are the new applications of nuclear power?

Define the radioactive isotope.

What do you think of nuclear safeguards?

APPENDIX 2

A sample of the non-native speaker's spoken corpus

Q. Why did you come to Kansas State University?

A. It was partially by intention and partly by design one of the reasons being that a professor from our university in Ljubljana was teaching last year at this university and I had contacts with him actually I had chosen either Kansas State or Penn State and this choice of Kansas State University may not have been the best as far as the specialities that are taught in the Nuclear Engineering Department at this school which is mostly the mechanical aspects and I mean radioactivation and shielding because I'm most interested in power engineering and thermal engineering.

Q. Can you discuss one of your present research projects.

A. One and the one project is the one that I do for the thesis the Master of Science thesis and the title is Temperature Wave Method of Measurement of Thermal Contact Resistance and the idea for this research came from work that is being done by some other graduate students on the neutron waves neutron diffusion waves and Professor Kladnek from Yugoslavia suggested that I may try something similar for temperature waves and so I'm developing now an experimental apparatus and I'm getting some experience in measuring temperatures and things like that well the only really interesting point is the statistical analysis of the whole process of measurement and possible I will continue on this temperature wave problem in Yugoslavia.

A sample of the native speaker's spoken corpus

Q. What do you think of the nuclear safeguards, the policing methods that have been adopted to try to prevent countries that now don't have nuclear weapons from getting hold of them?

A. Well just the idea itself I think is quite good as a matter of fact it would be quite good if we could get rid of them in all countries I think it's a ridiculous way to say maintain a peace I can take keeping the bombs around now whether their ideas for policing methods will work I don't know to build a bomb is not too difficult it's . . . the material is not too difficult by this I mean it is not too difficult to obtain these materials and designs under the eyes and nose of the policemen so to speak however to test one to see that it actually works is not that simple to do it secretly therefore it would be difficult for any country who has not developed say a bomb and stockpiled them before such a treaty or law international law would go into effect would have difficulty in obtaining a nuclear arsenal except for with the aid of the countries that already have them I think that any such step in that direction is probably a good one I can't see too much detriment to it at this stage primarily I feel the safe . . . from the viewpoint of the safety if you want to call it that of the United States we have . . . I believe this is of course classified material so I don't know the truth but I would say from what knowledge I have that we have more than enough bombs to destroy the world now and so I don't think we need to worry too much about developing more bombs.

APPENDIX 3

A sample of the non-native's written corpus

The purpose of the first stage of the preliminary design of the KSU FBR was to establish the design basis for the reactor core, as far as the core heat transfer and thermal hydraulics is concerned, and develop the computational methods for the determination of the core parameters.

In stage 2 of the preliminary design the computational and design methods developed by various sections shall be integrated and a parametric study of the concept performed. As a result of this stage the main parameters of the design shall be established, including the economic indicators, which shall be the basis for final approval and final design.

The proposed nuclear power plant is to be the first full size commercial fast breeder reactor. To serve as a successful demonstration of the sodium cooled fast breeders, the plant has to be designed for reliable operation and reasonable power cost. New technologies, hitherto not tested in smaller experimental reactors, shall be employed with utmost care, as the scaling up in itself is a considerable problem.

The materials selected have been limited to those, that have proven satisfactory performance in the sodium cooled fast breeder environment.

A sample of the native's written corpus

This mechanical design study is part of a preliminary study for the Kansas State University Fast Breeder Reactor (KSUFBR), a 1000 MWe sodium-cooled, mixed uranium-plutonium oxide fueled fast breeder reactor with a

prescribed thermal efficiency of one third. As for its part in the total design of the KSUFBR, the Mechanical Design (MD) Section is responsible for the consideration of such things as containment design, the fuel handling system, some structural designs, cooling system components, capital investments of the physical plant, etc. Although it appears that almost any physical structure and equipment might be included in a mechanical design study, such areas as detailed core design, some control instrumentations, and shielding, are the responsibility of other sections better qualified in these areas than the MD section. Furthermore, parts of the plant which follow well established conventional electrical power plant designs and operations, such as steam turbine generators, will be the responsibility of consulting and construction services under the direction of the Corporation.

The MD study is presented in two main parts; the reactor systems design is concerned with the reactor vessel, the primary cooling system, the fuel handling system, etc., while the steam generation and power plant division considers practically any part of the plant outside the reactor building.

APPENDIX 4

Sentence types

Type I SUBJECT + VERB copulative + POST-VERB complement

- a. SUBJECT + VERB be + POST-VERB complement nominal
adverbial
adjectival

The man is a professor.

tall.

here.

- b. SUBJECT + VERB get + POST-VERB complement adjectival
adverbial

He gets angry.

here.

- c. SUBJECT + VERB become + POST-VERB complement nominal
adjectival

He becomes a professor.

tall.

- d. SUBJECT + VERB complement taking + POST-VERB complement nominal
adjectival

He looks a fright.

He seems happy.

- e. SUBJECT + VERB senses + POST-VERB complement adjectival
intransitive

Sugar tastes sweet.

- f. SUBJECT + VERB middle + POST-VERB complement nominal
adjectival

He weighs 200 pounds.

Time weighs heavy.

- Type II SUBJECT + VERB intransitive + POST-VERB optional (adverb)

He works (well, here).

- Type III SUBJECT + VERB object taking + POST-VERB object(s)

- a. SUBJECT + VERB transitive + POST-VERB object

I see him.

- b. SUBJECT + VERB + POST-VERB -ing form + Q

(Q may be a complement, optional adverb, or object(s), depending on the type of verb underlying the preceding form.)

I enjoy reading.

I enjoy reading books.

- c. (1) SUBJECT + VERB indirect object + POST-VERB object₁ + to + object₂

The man gave a present to his wife.

- (2) SUBJECT + VERB indirect object + POST-VERB object₂ + object₁

He gave his wife a present.

- d. SUBJECT + VERB factitive + POST-VERB object_x + object_y

They elected him president.

She called him a liar.

- e. SUBJECT + VERB causative + POST-VERB object + past participle

He had them cleaned.

Type IV SUBJECT + VERB concatenating + POST-VERB object + verb + Q

- a. SUBJECT + VERB senses (transitive) + POST-VERB object + verb base form -ing form + Q

I saw him get/getting angry.

I heard him sing/singing.

I heard him sing/singing there.

I watched him eat/eating his lunch.

I observed him buy/buying a present for his wife.

I observed him buy/buying his wife a present.

I noticed them call/calling the boy John.

I saw him have/having his hair cut.

I heard him ask/asking her to go.

- b. SUBJECT + VERB object infinitive + POST-VERB nominal + infinitive

He wants me to go.

Type V SUBJECT + VERB passive + POST-VERB optional (by agent/with means)

The window was broken (by him/with a stone).

APPENDIX 5

A summary of verbal expansions with examples

Code	Label	Example
1.	FinV (finite form)	goes/went
2.	FinAux _{do} + base-form V	does/did go
3.	FinAux _{be} + ing-formV	is/was going
4.	FinAux _{have} + past participleV	has/had gone
5.	FinAux _{have} + BEEN + ing-formV	has/had been going
6.	FinModal + base-formV	will go
	will shall can	
	must may might	
	dare need ought (to)	
7.	FinModal + BE + ing-formV	will/would be going
8.	FinModal + HAVE + past participleV	will/would have gone
9.	FinModal + HAVE BEEN + ing-formV	will would have been going
10.	FinAux _{quasi-aux} + base-formV	is to go
	Quasi-aux: be to	seem to
	be able to	like to
	be made to	love to
	be going to	need to
	be about to	wish to
	be suppose ^d to	appear to
	be in a position to	want to
	ask to	begin to
	try to	expect to
	have to	intend to
	long to	forget to
	turn to	attempt to
	start to	
		used to
		have got to
11.	FinModal + base-form QuasiAux + base-formV	will be able to go

12. FinModal + base-form QuasiAux + base-
form QuasiAux + base form

will have to be able to go

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ASSESSMENT OF THE ACTIVE ENGLISH PROFICIENCY
OF SPEAKERS OF ENGLISH AS A FOREIGN LANGUAGE
AS A BASIS FOR SYLLABUS DESIGN

by

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B. A., University of Wales, 1967

AN ABSTRACT OF A MASTER'S THESIS

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ABSTRACT

This thesis is an attempt to illustrate a method by which the teacher of English to non-native speakers could objectively assess the active grammatical patterns needed by any particular group of students, active grammatical performance being defined as the constructions used in speech and writing.

The underlying hypothesis of the study was that a student who wishes to use English as a tool in acquiring a particular content technology would be taught to use the same grammatical constructions as those used by non-native speaking students in the same discipline who are successful in their studies.

The working hypothesis was two fold; firstly, that the non-native speaker would have a less complete active grammatical control of the language than his native counterpart, and, secondly, that the native speaker would not use all the available grammatical patterns.

To illustrate the method two graduate students in the Nuclear Engineering Department at Kansas State University were selected; one a Yugoslavian, a native speaker of Slovene, and the other an American, a native speaker of English. Both were studying at the same level and with approximately the same degree of success.

Both subjects were asked simple general questions relating to their field of study and the answers to these questions were used as the spoken corpus. The written corpus was taken from parallel research projects written by the students. The corpora were segmented into structural units and the units were analysed on the basis of sentence type, verb expansion, use of prepositional phrases, and sentence complexity.

The tabulated results did not indicate that the non-native speaker had a much more restricted usage than the native but what proved most interesting was the relatively small number of the available patterns used by either subject.

If a study based on the method illustrated were carried out on a statistically significant basis the teacher of English to non-native speakers would be able to decide on an objective basis what constructions to teach.

THE LOSER: A Near Run Thing.
Time. November 15, 1968.

P1 S1 C1
At the outset of a campaign that progressed from disarray to
C2
the brink of disaster, Hubert Horatio Humphrey confessed to close
C3 S2 C1 C2
aides: "I'm dead." He was down so far he had no place to go but
S3 C1
up. And up he went--up from a 16-point deficit in the polls, up
S4 C1
from the chaos of the Democratic Convention. When he bade good
night to loyal Democratic Party workers in the ballroom of the
Leamington Hotel in Minneapolis at 2:30 a.m. on Nov. 6, the
C2
Vice President was racing neck and neck against Richard Nixon.
S5 C1 S6 C1
Crucial states were still teetering. "It's a real Donnybrook."
C2 S1
Humphrey declared with characteristic ebullience. Yet the grin
C1 S8
was grim. Giving endless thanks to his staff, family and
C1 C2
supporters, Humphrey spoke less like a man who still entertained
C3 C4
hope than like one who was recounting a heroic foray that had
failed.

P2 S1 C1
Campaign Manager Larry O'Brien's Irish eyes were not smiling.
S2 C1
Speechwriter Ted Van Dyk, ashen and somber, had lost his usual

S3 C1 S4 C1
cockiness. Their man was not conceding. "I feel sufficiently

C2 C3
at ease." said Humphrey, "that I want to get a good night's rest."

S5 C1
But, like Charles Evans Hughes in 1916, he was heading for bed

only to awaken and discover that voters in California (and

C2
Illinois in 1968) were electing his opponent to the presidency.

S1 C1
P3 The outcome, as the victorious Duke of Wellington said of

C2 C3 S2
Waterloo, was "the nearest run thing you ever saw." One week

C1 C2
before Election Day, nobody would have believed the race could

S3 C1
turn out that way. In August, the party that nominated Humphrey

C2 S4 C1
at Chicago was a shambles. The old Democratic coalition was

disintegrating, with untold numbers of blue-collar workers

responding to Wallace's blandishments, Negroes threatening to sit

out the election, liberals disaffected over the Viet Nam war,

S5 C1
the South lost. The war chest was almost empty, and the party's

C2
machinery, neglected by Lyndon Johnson, creaked in disrepair.

Fists Clenched

S1 C1 C2
P4 As if that were not enough, Humphrey opened his campaign

C3
with a wild, disorganized abandon that defied his advance men's

efforts to bring out the crowds. Then there were the hecklers,

taunting a Vice President who refused to repudiate his unpopular chief and run away from the record of the past four years.

Humphrey's personal physician and adviser, Dr. Edgar Bergman,

complained at one point: "There is no adversity that has not

been visited upon this campaign." He was not far wrong.

P5 The turning point came on Sept. 30 in Salt Lake City, the

day after Humphrey endured some of the worst heckling of the

entire campaign. Fists clenched, lips tight, he flew to Utah

to deliver a speech pledging that if he became President, he

would risk halting the bombing of North Viet Nam in the hope of

achieving peace. Twice before, Johnson had undercut him when

he tried to stake out even moderately independent positions on

the war. This time there was not a word from the White House.

P6 From then on, the mood palpably changed. When a poll on

Oct. 10 showed that Humphrey was clambering back from his

post-convention slump, money began to flow in and Humphrey

was able to spend some \$12 million altogether. He spent

\$3,000,000 in the last week alone, most of it on TV. The S4

deeply divided Democratic Party began to show signs of belated C1

unity. S5 C1 Humphrey wound up his campaign odyssey of more than

98,000 miles amid laughter, with a triumphant Los Angeles parade

and a four-hour telethon with Edmund Muskie. S6 C1 Humphrey flew home

to Waverly, Minn., during the early hours of Election Day to vote

in Marysville Township, his home precinct, which gave him 385 C2

votes to Nixon's 128 and 15 for Wallace.

P7 S1 C1 During the afternoon, he drove eleven miles to nearby

Buffalo, C2 dropped off a blue suit at a cleaner's shop and sipped C3

a cup of hot chocolate at a local grill. S2 That evening, the

C1 Humphreys drove through flurrying snow to his headquarters in

Minneapolis.

P8 S1 C1 The stubborn Democratic battle that Humphrey watched in a

C2 14th-floor hotel suite was in no small measure a tribute to his

rare amalgam of warmth, courage, do-gooding liberalism and

S2 C1 practical politics. "Hubert is not a gut fighter," Lyndon

C2 Johnson, an expert judge of the breed, carped in 1960.

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AN ESSAY IN THE ANALYSIS
OF WRITTEN ENGLISH DISCOURSE

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1969

ABSTRACT

This thesis is the report of an investigation into the structure of English above the sentence level. Until recently linguists have confined their attention to the sentence in describing languages. A working assumption of the study was that the methods of description developed for language at the sentence level could be successfully applied to units higher in the hierarchy. In particular, it was assumed that the structure of discourse could be described in terms of the internal structure of the sentences composing the discourse. This assumption proved valid.

The study was principally concerned with the rules that were assumed to exist in the language determining the nature of reference, the way that reference to the same referent is maintained and the way that new referents are introduced.

The establishment of emic units above the sentence was not a primary aim of the study but it was assumed that rules governing pronominalization and stages of generality in reference to a given referent were quite likely to be concerned in part with the definition of such units. Accordingly the structure of paragraphs in terms of sequences of clause types, sentence types, and verb expansions was studied. For a similar reason patterns of lexical and thematic connection between sentences and paragraphs were investigated. The text taken as corpus for the study was 'THE LOSER: A Near Run Thing.' Time. November 15, 1968.

The results of the study consist of tentative rules of reference and of paragraph structure. In addition, the thesis discusses a number of procedural matters. The results of the study are laid out in the form of a running discussion of the test, providing an opportunity for comment on the method of analysis used and the clause and sentence typology used in the thesis.