

## The Listening Comprehension Programme at the Asian Institute of Technology

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### **The situation**

At AIT all engineering work is conducted through the medium of English. So students must listen to and elicit information from lectures in English by speakers of many nationalities, both native and non-native speakers.

### **The problem**

Many students claim that they 'know' each word, when written or when articulated by itself in a slow and clear (unnaturally exaggerated) way. But they are unable to follow even short amounts of continuous speech, to impose the correct structure upon it, or to elicit information from it.

### **Reasons for the problem**

In such students' previous study most of the emphasis has been on pronunciation production, often at the word level only or in a slow, formal style of speaking. Any listening comprehension work has also probably been of this slow, formal style, or else the students have been asked to listen not for basic information – what is said – but for grammatical and other linguistic features – how it is said. Thus the students have not been prepared for extracting information from extended, rapid, unscripted, often colloquial speech by many different speakers with corresponding differences in delivery.

### **Temporary solution – dictation**

Our first step was to give frequent dictations in the language laboratory, many taken from original unscripted lectures by speakers of varying nationality. Students worked at their own speed and listened to the dictation as many times as they wanted.

The advantages of dictation are :

- i) in writing the dictation the student must *react* to what he hears. He is forced to impose a phonic and then a syntactic structure on the stream of sound, and then to seek information in it by making his written version (one hopes) meaningful. The student is not able to listen passively.

- ii) The student himself, as well as the teacher, can actually see whether he has made a correct analysis of what was said, in terms of:  
 phonic segmentation – through correct analysis of rhythm and stress, and of pronunciation, including elision, liaison and juncture ;  
 vocabulary ;  
 syntactic analysis and grouping ; and  
 overall understanding of the message.
- iii) The student is exposed to different speakers, accents, types of voice etc..

We met positive student feedback to the dictations, in the sense that the students felt that they themselves could gauge their level of comprehension, and could see progress or mistakes; and they saw dictation's transferability to the listening situation in their lectures.

Nonetheless, we considered that there are disadvantages to a listening course consisting solely of dictations. These are:

- i) dictations in isolation test what signals a student can look for and use in order to follow a stream of spoken English and to extract information from it, but [they do not (except by teacher explanation before or afterwards) teach a student *how* to listen,]
- ii) In excessive use of dictations the student may not see the wood for the trees: he may search so much for accuracy at the micro level (spelling, syntax, etc.) that he may still fail to understand the overall meaning, or even to see that such understanding is the main aim in the first place.
- iii) Of necessity dictations are short. Lectures are, however, long. In dictations the student attempts to write a word-for-word version ; in lectures he must follow lines of thought, extract main ideas and recode them for storage in his long-term memory, perhaps with the help of written notes. By themselves, dictations do not train the student in recording ideas or in recording them in note form.

My personal opinion is that dictations are extremely useful, in that they give practice in listening comprehension at many levels, from that of basic phonic segmentation up to that of overall understanding of short amounts of speech. They can play a valuable part in any listening comprehension programme. And if one had to start a listening comprehension course in very little time and with few resources, I would recommend dictation as a good first step, ideally with recordings of real-life unscripted lectures or at least with passages read in an informal, life-like manner.

### **The current AIT listening programme: objectives**

Because of the disadvantages of dictation listed above, a new listening programme is currently being prepared. Its objectives are:

- 1) To make the student aware of the particular rhythmic and phonic patterning of English (i.e. word and sentence stress, and aspects of pronunciation in extended speech, such as weak forms, elision, liaison and juncture).
- 2) To give the student exercises based on psychological strategies of listening - if the student can master these exercises, he will hopefully be able to apply the same techniques of analysis, consciously or sub-consciously, in his own listening.
- 3) To give the student practice in extracting the main overall information from an extended lecture or talk, and in taking notes.

### **Psychological foundations and their teaching implications**

Research is still being conducted by psychologists on what a listener 'does' when he listens to a stream of sound and 'understands' it by extracting from it the intended message. Rivers (1977) suggests three stages of perception in a listener's active construction of a message from a stream of sound:

#### **STAGE 1) Perceiving that there is a systematic message:**

the listener recognises that within a stream of sound there are characteristics of a language that he knows, and he makes some rudimentary division into segments, based on rhythm and his recognition of sounds and sound sequences. This stage depends on the listener's echoic memory, which lasts only a few seconds.

Teaching implications: the student must be trained to prolong the auditory image, or echo, of what he hears in English; he should repeat segments that he has heard, first as stretches of sound, and then in order to force him to make a preliminary attempt at grouping.

#### **STAGE 2) Imposing a structure:**

the listener imposes a phonological structure on the stream of sound and then groups it syntactically into segments or 'chunks'; these chunks then become items in the listener's short-term memory, which can hold from 5 to 9 items. If the listener cannot group what he hears into chunks but instead works only at the word level, storing words as items in his short-term memory, his comprehension will rapidly break down since his short-term memory will be unable to retain enough of these word-items from which he can reconstruct the overall message. Moreover, if the listener groups the stream of sound into incorrect

chunks, he will retain these incorrect chunks that he thinks he has heard, because he can no longer refer back to the actual sound signal since the echoic memory fades after only a few seconds.

Teaching implications: the student must recognise the phonological structure and the rhythm of English, and must be able to group sounds and words accordingly.

The student must be able to form syntactic groups from what he hears. He must be able to recognise structural signals of sentence shape (question form, negation, coordination, etc.); signals of condition, purpose, time relationships, etc.; signals which indicate the parts of a phrase or clause (prepositions, articles, auxiliary verbs, etc.); and redundant items, in order to discard them immediately.

Quick, effortless grouping is very important. Otherwise, if the student spends too much time on grouping, he may understand each part as it comes but may not in the end be able to extract information from the longer paragraph or talk, since all his time has been taken up with grouping and he does not have any left for Stage 3).

### STAGE 3) Recirculating, Selecting, Recoding for Storage:

the listener recirculates the chunks through his short-term memory and relates earlier chunks to later ones until he selects what he will extract as the basic message. He then recodes this for storage in his long-term memory.

The recoded version takes the form of simple factual statements, since it is easier to recall statements in a subject-verb-object form. These statements are called SAAD's by psychologists, 'simple active affirmative declarative statements'.

Teaching implications: the student must be able to extract main ideas and relationships from perhaps complicated surface forms, and then to recode these relationships into SAAD's. He must at the same time be able to spot redundancy and repetition, and to distinguish between main and supporting ideas.

### **The current AIT listening programme : organisation and materials**

All AIT students are tested for English ability on entry. Some are immediately exempted; but the majority study English for one, two or three terms (at 5 hours per week), depending on their ability.

The listening course takes up 2 hours a week, and is done on three levels: Micro - up to sentence level;

Intermediate – a small section, from several sentences up to the equivalent of one or two paragraphs;

Macro – the level at which major divisions of a complete (but short – approximately 5 minutes) lecture or talk are examined.

The listening materials currently cover the following areas:

Course E1 Work relating to Perception Stages 1 and 2:

(Entry: students studying for 3 terms)

Stress – work on the timing of spoken English (word and sentence stress; identification and prediction of stressed words and syllables, and of unstressed weak forms).

– recognition that stressed words carry the basic information (students identify information-carrying words on a written script before hearing the spoken version; students elicit basic information after hearing the stressed words only of a talk).

Structural Features – main clause analysis (students listen to a spoken excerpt of about 1 minute and then identify the main clauses only, by filling in a framework with subject headword, main verb and object headword, if any. This forces students to recognise signals and make syntactic groupings).

– exercises at the micro level on modification, embedding, nominalisation and reference (students are taught to identify the signals, the grammatical relationships and the conceptual relationships).

Course E 2 Work relating to Perception Stage 2:

(Entry: old students from E1; new students studying for 2 terms only)

Structural Features and Functional Areas - exercises at the micro, intermediate and macro levels on recognition of the signals (if any) and on the understanding of the grammatical/functional relationships of

modification	contrast
embedding	similarity
nominalisation	purpose
reference	restatement
sequence	exemplification
cause	

This work includes recognition and understanding of inter-sentence logical connectors and of boundary markers (in word, phrase, clause and sentence form).

Work relating to Perception Stage 3)

Lexical studies, restatement of ideas (recoding), and note-taking; also recognition of functional and logical relationships between sentences and larger stretches, where there are no overt signals.

Course E3 Work relating to Perception Stage 2):

(Entry: old students from E2;  
new students studying  
for 1 term only)

Recognition and understanding of inter-sentence logical connectors and boundary markers.

Work relating to Perception Stage 3):

Recognition of functional and logical relationships between sentences and longer stretches of speech where there are no overt signals.

Restatement of ideas (recoding).

Note-taking.

Subsequent recall in written or spoken summaries.

Note: In all three courses, wherever possible recognition exercises take the form of restating the grammatical or functional relationship in a simpler way. This relates to Perception Stage 3), and prepares for both recoding and note-taking.

### Conclusion

AIT's listening materials are still at the development stage, and there will obviously be extensive revision and change in the light of experience. However, we are attempting to base the materials on current research into psychological stages of aural perception. We wish to teach our students *strategies* of listening comprehension, which they can apply at first consciously, and later sub-consciously like a native-speaker of English, when they are listening to lectures. Dictation is a valuable tool to this end, but is now only used as one out of many types of exercise.

### Bibliography

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### ACKNOWLEDGEMENTS

My thanks are due to my colleagues at AIT—Tony Kidd, Mark Ellis, and Michele Gregory—who have provided invaluable advice and help. Many of the sample exercises were originated and written by Tony Kidd.

### SAMPLE EXERCISES

Below are some samples of some of the types of exercise that we have so far developed. Most are shorter than they would be in the actual listening programme. Because of shortage of space, we can only give examples at the micro and intermediate levels.

#### Course E1: Stress

##### SAMPLE 1 - Identifying stressed information words

Instructions: (same on Tapescript and Student Worksheet) Look at the passage below. Stop your machine and underline the words which you think should be stressed. Then start your machine and check your answers.

Tapescript

Student Worksheet

(Pause)

The Stressed words are:

Finding.. solution.. problem.. proving  
difficult. Letters.. sent.. newspaper  
daily, expensive commissions..  
appointed.. discuss.. matter  
.. experts.. brought in.. abroad..  
offer solutions.

Finding a solution to this problem is proving  
difficult. Letters are sent to the newspapers  
daily, expensive commissions are appointed  
to discuss the matter and experts are brought  
in from abroad to offer solutions.

##### SAMPLE 2 - Identifying unstressed weak forms

Instructions: (same on Tapescript and Student Worksheet) Look at the passage below. Listen to the speaker saying it, and draw a circle round every use of the weak, unstressed vowel sound /e/. The first sentence has been done as an example.

Finding a solution to this problems is proving  
difficult. Letters are sent to the newspapers  
daily..., etc.

##### SAMPLE 3 - Stressed words as information words

Instructions: (same on Tapescript and Student Worksheet) Listen to a description of the instrument using only the stressed words, and label the parts of the instrument.

## Tapescript

This very simple instrument measuring solar radiation consists of a disc of metal, the top surface painted black, which absorbs the sun's rays. Underneath, attached underneath, a thermometer measures temperature. Then, below that, insulation, and below that, another thermometer, supposed to measure the temperature of the air, such a way that, in any way, not in any way affected by the sun. Above the black plate, a glass plate is intended to protect the instrument, the effect of wind, air blowing across the surface, does not lose heat by convection, the way it would do without the glass plate. The amount of solar radiation that falls on the black plate is measured, the difference in temperature between the black plate and the ambient air as measured by two thermometers.

**Course E1: Structural Features****SAMPLE 4 – Structural Features: main clause analysis**

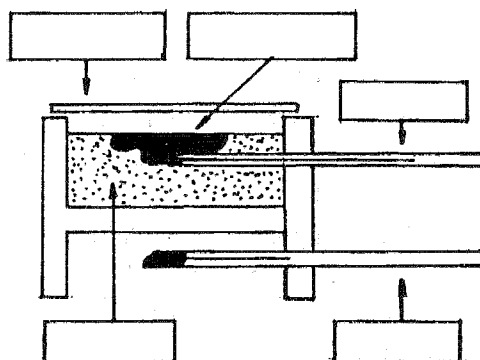
Instructions: (same on Tapescript and Student Worksheet) Listen to the lecture excerpt that follows, and on your worksheet fill in the main clause framework, using headwords only.

## Tapescript

The experiment I want to describe was set up by a nutrition expert who wanted to test out two hypotheses. The first was that, given a reasonably varied natural diet, mammals – including human beings would tend to select from a varied diet which would give them all the nutrients they need for life and health. The second hypothesis was that it was possible to disturb this natural mechanism if people developed a craving for some particular taste or food which would throw the whole of the balance of the diet out of gear. To conduct the experiment he took two groups of rats.

(From: CIEL "Experiments", No. 7)

## Student Worksheet



## Student Worksheet

*Main Clause Framework*

	subject	main verb	object or complement
1.	experiment	was set up	
	(basic active sentence = expert set up) experiment		
2.			clause as complement: write first word only
3.			clause as complement: write first word only



**Course E2: Structural Features and Functional Areas****SAMPLE 5 - Reference**

## Tapescript

Listen to the extracts, and supply a reference word where you hear \* (electronic beep).

1. All of the guppies were adult, all of \* were in good health, and all of \* were at the stage where \* could reproduce.

(CIEL "Experiments", No. 13)

**SAMPLE 6 - Reference**

## Tapescript

Listen to the passage which follows, and, when you hear \* write in the blanks any reference word which you think would be appropriate.

1. In other words, as the overpopulated conditions became apparent and began to take effect, fewer and fewer of the guppies \* were born survived to the stage \* \* could reproduce.
2. \* went on the experiment was continued - and \* went on for approximately eighteen months.

(CIEL "Experiments", No. 13)

**SAMPLE 7 - Sequence**

## Tapescript

In the exercise which follows write down the word or words indicating SEQUENCE.

## Student Worksheet

Listen to the tape and in the boxes write any reference word that you think appropriate.

1. All of the guppies were adult, all of  were in good health, and all of  were at the stage where  could reproduce.

## Student Worksheet

Listen to the extract and in the blanks write any reference word which you think appropriate. The extract is a continuous section of a lecture, but numbers have been inserted to guide you.

1. (a) \_\_\_\_\_ (b) \_\_\_\_\_  
(c) \_\_\_\_\_
2. (a) \_\_\_\_\_ (b) \_\_\_\_\_

## Student Worksheet

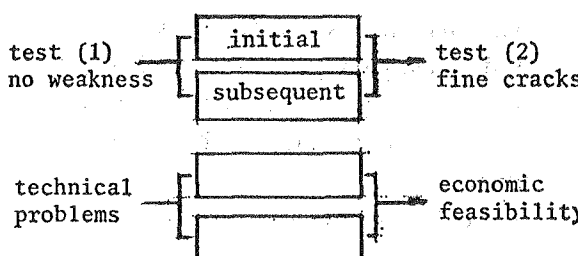
Make a note of the SEQUENCE signals in the following extracts.

Example: The *initial* tests which were undertaken revealed no serious weaknesses, but *subsequent* more thorough studies showed very fine cracks.

Tapescript

1. In development projects of a technical nature the first considerations are, of course, technical, followed by economic feasibility considerations.  
(CIEL "Experiments", No. 5)

Student Worksheet



SAMPLE 8 - Difference

Tapescript

In the blanks provided write the words which signal DIFFERENCE. Where the relationship is implied, rather than signalled explicitly, write X.

1. You know, what is organic farming as opposed to other kinds of farming.  
(CIEL Series 4, No. 14a)
2. I then went on to carry out a second series, using this time a tool vibrating at a very high frequency.  
(CIEL "Experiments", No. 8)

Student Worksheet

In the blanks provided, write the words which signal DIFFERENCE. Where DIFFERENCE is implied only, write X in the blank.

1. organic farming → \_\_\_\_\_ ← other kinds of farming

SAMPLE 9 - Cause/Result/Consequence

Tapescript

Listen to these sentences and in the space provided note down the words or phrase which signal a CAUSE/RESULT relationship.

1. In a Central American country a canal became clogged with these weeds as a result of a dam having been erected.

Student Worksheet

Look at the two parts of the CAUSE/RESULT relationship which are listed under *EVENT* and *RESULT*, and in the box write the words which signal this relationship.

- |                |  |                          |
|----------------|--|--------------------------|
| <i>EVENT</i>   | <i>signal word</i>   | <i>RESULT</i>            |
| 1. dam erected | → <span style="border: 1px solid black; display: inline-block; width: 60px; height: 20px; vertical-align: middle;"></span> → | canal clogged with weeds |

## Tapescript

2. The manatee is a defenceless animal and consequently it is preyed upon not only by its natural enemies, namely large animals, but also by man.

(CIEL "Experiments", No. 14)

## SAMPLE 10 - Cause/Result/Consequence

(Instructions: same on Tapescript and Student Worksheet)

Listen to the extracts and fill in the blanks to complete the CAUSE/RESULT relationship.

1. Another theory which was held until fairly recently was that the blue colour of the sky was due to the scattering of light by the very fine dust particles which you find in the upper atmosphere.

(CIEL "Experiments", No. 1)

2. In Thailand, over the last few years, rates of population growth have been around 3%. What it means is that every 21 years Thailand's population doubles.

(CIEL "Experiments", No. 17)

## SAMPLE 11 - Consequence

## Tapescript

Read the introduction on your worksheet before you start the next tape exercise.

## Student Worksheet

2. animal is  → preyed on by larger animals and by man.

1. dust particles → \_\_\_\_\_  
scatter light

2. growth rate → \_\_\_\_\_  
= 3%

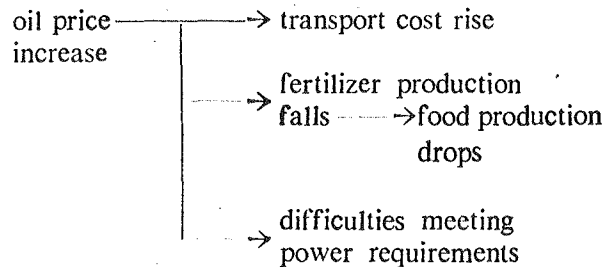
## Student Worksheet

## INTRODUCTION

Make note of the results and consequences mentioned by the speakers. Follow this example:

EXAMPLE: The effects of the oil price increase have been very noticeable. Transport costs have risen, of course, fertilizer production has fallen, so that food production has dropped. And most countries are now facing severe difficulties in meeting demands for power.

Represented diagrammatically, this statement would look like this :



Now make similar notes of the following CONSEQUENCE relationships:

1. The implications of rapidly increasing population growth in developing countries are well known, and you're all aware of them. For example, poor families find it increasingly difficult to provide food, shelter and clothing for larger numbers of children. Governments themselves find increasing difficulties in providing the services that are demanded by increasing populations. There are pressures on urban areas. There is likelihood of increasing unemployment.

(CIEL "Experiments", No. 17)

2. The situation in this Eastern European country was something like this. Between 1957 and 1960....66, abortion was legal and was very, very popular. It was cheap. It was hygienic. It was done quickly. It was done in secrecy. And it soon became the most popular form of family planning in the country. The result was remarkable. Birth rates declined from something in the order of 22 live births per 1,000 population groups to 13.4.

(CIEL "Experiments", No. 17)

