The First Semester Course at King Mongkut's Institute of Technology

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The KMIT Scientific and Technical English Project is for Intensive English I and II which are for the first-year students admitted to KMIT, Thonburi. Since the students come to us by passing the entrance examination given by the Board of Education, they are not familiar with Technical English. Consequently, in our Intensive English I we spend only half of the course for Technical English. The other half is devoted to "General English". As our Intensive English is an eight-period-a-week program, we provide 4 periods for Technical English.

The main text used for the whole semester is "*Nucleus: for General Science*."[1] We use the book together with the related tape exercises for oral and listening comprehension, prepared by ourselves".

Purpose & Nature of tape exercises

1. The oral exercises are not designed to have the students command the structures and vocabulary in speech or writing, but rather to reinforce the exercises learned from the textbook. Most of the exercises attempt to involve the students in thought. It is hoped that the increased understanding of the basic language of EST will lead primarily to an improvement in the students' ability to read scientific texts.

2. The listening comprehension exercises are not presented in the language of spoken English with real dialogues or monologues, natural hesitations, rephrasings etc., They are in "spoken prose" and are designed to improve the reading skill of the students in their technical subjects. For example, the exercises are aimed at the recognition of some special parts of sentences, at the identification of general and particular points and other forms stated in Mr. A. Dunlop's paper. In listening comprehension exercises, the students need more thought to answer the questions or to perform other activities.

How to Use the Materials

1. Each of the teachers has her own set of tapes and proceeds with them at the pace which best suits her class.

2. Teachers teach parts of the textbook; then, without looking at the textbook, students are asked to listen to the relevant oral exercises and answer the

questions orally for about 10 minutes. The exercises are made to be as flexible as possible. If the teachers see that the students can perform well in any exercise, they can pass to the next exercise. Finally, the listening comprehension exercises are used to strengthen the students' understanding.

3. The students have to be warned that they will not get any printed sheets of the tape exercises so that they have to try hard to understand the questions and answer them.

4. At the very beginning of the course, teachers must go slowly to allow the students to develop their listening skills. Some difficult terms or patterns have to be explained before proceeding with the tape exercises in order that students can understand what activities they are expected to do.

5. Teachers need to be well-prepared to be able to consider the possibilities of the answers. Many questions, both in the book and in the tape exercises have more than one answer. Teachers need to be able to consider the students' arguments and accept the possibilities.

Examples of the Material

The examples are taken from Unit 2 of the materials which accompany Unit 2 of *Nucleus for General Science.*

UNIT 2 Oral Exercises

Exercise I.

Aim To practice prepositions which show position.

Please follow these instructions

1. Draw a square. Now draw a circle inside the square.
2. Draw a rectangle and then draw a semi-circle above it.
3. Draw a triangle and then put a dot *on the left of* the triangle.
4. Write your name at the top of the page.
5. Draw a line below your name.
6. Draw a circle. Now draw two stars diagonally *above* the circle.
7. Draw a T-square at the bottom of the page.
8. Draw two horizontal parallel lines. Now draw a spiral between them.

Now listen to these examples. The numbers are the same as the numbers on your drawings.

1. Q Where is the square in relation to the circle?
   A Outside the circle.
2. Q Where is the semi-circle?
   A Above the rectangle.

.....etc.

Exercise II.

Aim To practice *there is* + NP + Prep.

Example: Q What is there below your name?
A A line.

Now you do the same.

1. as example 1
2. Q What is there inside the square?
   A A circle.
3. Q What is there above and below the spiral?
   A Horizontal parallel lines.
4. Q What is there diagonally below the stars?
   A A circle.

.....etc.

Exercise III.

Aim To practice following instructions about location.

Look at the table at the top of page 12 in your book, and listen to these examples.

1. Q Which element is fourth from the right in the middle row?
   A Rhodium.
   Q Which element is between copper and gold?
   A Silver.

.....etc.

UNIT 2 Listening comprehension

Exercise I.

1. **Aim** To recognise prepositions showing position.

Look at the diagram on page 14 of your book, and listen to these examples. Please repeat the phrase which shows the position.

1. Q There is a gas-jar on the left of the apparatus.
   A on the left of the apparatus
2. Q Inside the gas-jar there is some oxygen.
   A inside the gas-jar

.....etc.

Exercise II.

Aim To practise making inferences.

e.g. Q X is on the left of Y. Where is Y ?
A On the right of X.

1. Q X is behind Y. Where is Y ?
A In front of X.

2. Q X is above Y. Where is Y ?
A Below X.

.....etc.

Exercise III.

Aim To identify generality.

e.g. Q Which word includes the rest: tripod, bunsen burner, retort stand, gas jar, apparatus ?
A Apparatus.

1. Q Which word includes the rest: silver, gold, metal, iron, brass ?
A Metal.

.....etc.

Exercise IV.

Aim To relate nouns to main verbs.

e.g. Q In Brazil, the largest country in South America, coffee is found. Where is it found ?
A Brazil.

.....etc.

Comments

1. The textbook

a) The book gives a concrete background for scientific texts.

b) Its level of difficulty is suitable for new students of engineering and scientific fields.

c) The exercises in the book are challenging and provide enough activities to avoid boredom.

d) The book helps the teachers overcome the fear of EST and gives them confidence in teaching EST.

2. The tape exercises

Good points:

a) They give students the opportunities to listen to the terms and patterns learned in the book, spoken by native speakers.

b) The exercises frequently ask the students to follow instructions exactly and blindly from the beginning until the results turn out. This familiarizes the students with working as instructed in their workshops or in their laboratories.

Bad points:

a) Some of oral and listening exercises repeat each other. It is better, as we have decided, to use the listening exercises as a test after finishing each unit.

b) Each student's listening skill develops at a different speed. These various levels of listening cause difficulty in teaching tape exercises.

3. The students

a) They obviously improve listening skills.

b) They become familiar with writing and giving descriptions.

c) They become acquainted with means of expressing various relationships (spatial, logical, mathematical, etc.) that are common to Science and Technology. Above all, they recognize and understand these forms of expressions quickly and automatically, and that is helpful to their reading.

REFERENCES

[1] Martin Bates and Tony Dudley-Evans. *Nulecus-English for Science and Technology: General Scienec.* London: Longman, 1976

N.B. No recordings of the discussion are available.