DEVELOPING READING MATERIALS FOR GRADUATE LEVEL EAP (ENGLISH FOR ACADEMIC PURPOSES) COURSES AT ANKARA UNIVERSITY

A THESIS
Submitted to the Faculty of Letters
and the Institute of Economics and Social Sciences
of Eikene University
in Partial Fulfillment of the Requirements
for the Degree of A. Master of Arts in
the Teaching of English As A Foreign Language

BY
SINTAI ATAY
AUGUST, 1990
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The examining committee appointed by the Institute of Economics and Social Sciences for the thesis examination of the MA TEFL student Sinan Atay has read the thesis of the student. The committee has decided that the thesis of the student is satisfactory.

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Thesis Title: DEVELOPING READING MATERIALS FOR GRADUATE LEVEL EAP (ENGLISH FOR ACADEMIC PURPOSES) COURSES AT ANKARA UNIVERSITY

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Bulent Bozkurt
Dean, Faculty of Letters
Director of the Institute of Economics and Social Sciences
To my father
and
to the memory of my mother
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CHAPTER 1
STATEMENT OF THE TOPIC

1. INTRODUCTION

To keep up with the recent innovations and changes in science and technology all over the world, researchers or those prospective researchers of the future have to be prepared to follow the printed materials on the relevant fields within their interest. To carry this out, the universities are kept responsible for transferring the "high-tech" information from the developed countries to make use of that invaluable information, and put them into public and academic use. This transfer is done through receptive skills: reading and listening. Despite the fact that both skills are facilitated in universities for information transfer, reading is the more important skill of the two. Therefore, reading is given great importance by scientists and researchers. To train scientists competent in reading skill requires an extensive study of reading techniques and strategies.

Keeping in mind this overall importance of reading in academic settings, the focus of this study is on: Developing Reading Materials for Academic Purposes Courses at the Graduate School of Natural and Applied Sciences English Preparatory School in Ankara University.
In preparing the reading materials for the graduate students at Ankara University, there are three stages that cannot be separated from each other: the selection, development and organisation of the materials. The emphasis in this thesis will be on these parts of the materials design process.

2. Types of research

In this thesis, two types of research were done to conduct the study: library research and descriptive research.

3. Statement of the purpose

In the Graduate School of Natural and Applied Sciences School, the students are expected to follow the recently published journals, books and articles related in their fields after attending the language program that lasts only 8 months. The majority of the students in this program are Masters level students, but there are some Ph.D. students as well. However, their number is limited. Throughout the two semesters, the students read different types of texts including scientific texts, but they mainly read the Kernel Series, and Reading and Thinking books to learn grammar and structure. This specific group of students use the language they learn in their academic fields: chemistry, maths, physics, geology, agriculture, and/or nutrition.
Research on developing reading materials can help the students become more competent in respect to carrying out their academic studies in English. Since most of the students' foreign language background is not good enough to follow their scientific reading materials printed in English, their reading ability needs to be improved within a limited span of time, and effective reading materials can help. For this reason, the development of materials appropriate to the needs and characteristics of this specific group of students is vital and indispensible.

4. Steps of the plan

The process of developing reading materials consists of four basic steps:

a. Review the literature to determine the criteria to develop the most suitable reading materials for graduate students according to authorities in reading.

b. Conduct a study involving students as respondents requiring them to express their opinions about reading through a questionnaire to determine another set of criteria.
c. Compare the data obtained from the respondents with the criteria developed from the literature review.

d. Develop original reading materials for the group of students.

5. Statement of Limitations:

This study is limited to the selection, development and organisation of effective materials to be used for graduate students enrolled in the English grad-prep school, but not to the classroom use of these materials, i.e. how to teach the reading skill. The main emphasis is on materials development for this specific group of graduate students in Ankara University.
CHAPTER 2
REVIEW OF LITERATURE

1. INTRODUCTION

Definitions of reading

Prior to dealing with materials development, it will be useful to define the reading concept first. There have been a great number of definitions of reading up to now. Below is one of them from a dictionary:

The action of pursuing written or printed matter; the practice of occupying oneself in this way. (Oxford English Dictionary 1978)

This definition of reading can be elaborated easily; reading is the process of decoding the meaning encoded by the writer on the printed material because the action of pursuing written material entails the process of "decoding" and "encoding". Reading was viewed as the visual recognition of graphic symbols and an understanding of their meaning, as Wardhaugh describes:

When a person reads a text, he is attempting to discover the meaning of what he is reading by using the visual clues of spelling, his knowledge of probabilities of occurrence, his contextual-pragmatic knowledge, and his syntactic and semantic competence to give a meaningful interpretation to the text. (in Robinett 1980:355)

Through the recent developments in the field of language teaching, the explanation of the four language skills has
changed great deal. The recent innovations have affected the definitions of the skills in many respects. Prior to the involvement of psychology into the study of language, the definitions of reading were mainly based on the facts available within the linguistic description as mentioned above. Reading now is defined in the light of both linguistics and psychology, in other words, psycholinguistics. The below is a definition used in psycholinguistics:

Reading is a receptive language process. It is a psycholinguistic process in that it starts with a linguistic surface representation encoded by a writer and ends with meaning which the reader constructs. (Goodman 1988:12)

It has taken the researchers many years to develop models which best explain the process of reading.

2. A BRIEF HISTORY OF READING MODELS AND THEIR THEORETICAL FRAME

Since reading is one of the most important ways of collecting data, enriching knowledge and conducting academic research throughout the world, there have been many attempts to develop the reading theories on which reading models are based.

During the Second World War, under the influence of the Audio Lingual Method, language was considered to be speech,
and consequently reading was considered to be simply speech written down. Many audio-lingual language programs did not pay attention to reading because of the requirements of the audio-lingual method from its proponents: such as doing, extensive drills and dialogs for the sake of improving the students' speaking ability. The texts provided the grammatical patterns and vocabulary. The students improved their learning ability by focusing on the patterns they were forced to memorize, in other words, through habit formation. Reading was fairly mechanical in the ALM. For Bloomfield (1942) the main problem in getting the content of reading is imperfect mastery of the mechanics of reading (in Silberstain 1987:30). At the elementary level, the main focus on reading was to grasp the simple patterns appropriate to the situations in which learners are likely to be. This type of reading is done through different types of slot drills. Teachers who were dissatisfied with this way of learning to read had required the advanced ESL students to put their native language reading skill into use. However, the result was not satisfactory. David Eskey (1970) characterizes this dissatisfaction:

One result of the structural dogma that 'language is speech' has been a relative lack of interest in the problems of the advanced students of English as a foreign language for whom the ability to read the written language with good comprehension at reasonable rates may be at least as important as the ability to converse. (in Silberstain 1987:29)
A few years later, the educators were under the effect of Chomskyan linguistics, and reading was regarded as a linguistic problem. Their focus was mainly on syntax, rather than on the other aspects of the language. During the 1960's, there was another change in research in respect to reading. The texts prepared for native speakers were used as models for second language reading material, as William Norris (1970) observes:

"Teachers of reading and authors of textbooks for English as a foreign language have borrowed many ideas from materials for native-language reading improvement, revising and adopting them to the needs of the non-native speaker."

(in Silberstain 1987:29)

As a matter of fact, during the same period, there was a trend developing gradually. It was announced to the public in Kenneth Goodman's article, "Reading: A psycholinguistic guessing game."

With the involvement of psychology in language teaching, language learning and teaching were viewed from different perspectives; Silberstain (1987) in that matter claims that second language reading came to be seen not only as a means for language instruction but also as an information-processing skill (p.29).

Both cognitive psychology and linguistics contributed to the establishment of the psycho-linguistic
reading model. In this model, the reader is not passive, but active: making and applying certain skills and strategies to make comprehension easier and quicker. Goodman explains this model as follows:

Efficient reading does not result from precise perception and identification of all elements, but from skill in selecting the fewest, most productive cues necessary to produce guesses which are the first time. (1967:498)

This model is based on two disciplines: contemporary linguistics and cognitive psychology. The text books written under the influence of the psycholinguistic model supply the students with practise in a variety of skills and strategies for comprehension (Silberstain 1987:30). Those skills are comprehension strategies: guessing meaning from the context, using morphological information, and using a monolingual dictionary (Silberstain 1987:31). The students have to be aware of their reading purpose; as a result of this awareness, they will be able to develop a suitable approach to a reading task. There is an interaction between thought and language in this model, as Goodman states:

The reader brings to the task a formidable array of information and ideas, attitudes, and beliefs. This knowledge, coupled with the ability to make linguistic predictions, determines the expectations the reader will develop while reading. (in Silberstain 1987:30).
Coady (1979) has in Carrell elaborated on this basic psychological model and proposes a model (see Figure 1) that derives from EFL/ESL reader's background knowledge, conceptual abilities and process strategies.

![Diagram of Coady's Model]

By conceptual ability, Coady means general intellectual capacity. By processing strategy, Coady means various subgroups of reading ability: grapheme-morphophoneme correspondences, syllable-morpheme information, syntactic information, lexical meaning, and contextual meaning (Carrell and Eisterhold 1988:75). As for background, Coady states the importance of it:

Background knowledge becomes an important variable when we notice, as many have, that students with a Western background of some kind learn English faster, on the average, than those, without such a background. (Carrell and Eisterhold 1988.a:75)

Within the psycholinguistic model of reading, background knowledge receives particular attention as
part of the process of reading. As Immanuel Kant claimed as long ago as 1781:

If new information, new concepts, new ideas can have meaning only when they can be related to something the individual knows, this applies as much to second language comprehension as it does to comprehension in one's native language. (in Eisterhold J. and Carrell P. 1988a.:73)

Background knowledge is the concept used in the schema theory which is considered to be the most important model of reading; however, prior to taking the background information into account, there have been some other reading models that received attention.

3. BOTTOM-UP PROCESSING

This is the process of the linear model of reading: from text to reader through decoding the meaning encoded on the printed material. In this processing, the information transfer is one way: from text to the reader.

The following figure explains the process clearly:

![Figure 2. Rumelhard D. Linear reading model (1977) (in Carrel and Eisterhold 1988)](image-url)
In Rumelhart's version of the linear model (see Figure 2.), the direction is one way. Syntactic, semantic, orthographic and lexical knowledge supply the pattern synthesizer with input simultaneously. The information is held in the center and redirected as required. While reading, the orthographic, lexical, syntactical and semantic knowledge are decoded by the reader to perceive the meaning the writer wants to convey. The process of perception of the meaning is solely based on the linguistic input of the text. In this model, nothing, except for the linguistic input, facilitates the comprehension. The obtained data from the text is mapped against the reader's schemata. The reader is to understand how the sentences are built through substitution, ellipsis, conjunction, and lexical cohesion. Those cohesive units of English are the indispensable means in bottom-up processing to improve the rate of comprehension. This type of information transfer is called bottom-up processing, as Spiro states:

Bottom-up processing is decoding individual linguistic units (e.g., phonemes, graphemes, words) and building textual meaning from the smallest units to the largest, and then modifying preexisting background knowledge and current predictions on the basis of information encountered on the text. (in Carrell P. 1988:101)

This type of reading model, the linear model, has
some deficiency in contextual use. There are some deficiencies when the reading process is analyzed while taking the background knowledge into consideration.

In the linear model, the effect of the background information on the comprehension of reading materials is not emphasized as mentioned below:

Linear models which pass information along in one direction only and which do not permit the information contained in a higher stage to influence the processing of a lower stage contain a serious deficiency.
(Samuels J. and Kamil M. 1988:27)

The reading process is carried out through in a linear manner; the sources for the comprehension of the materials are syntactical, semantic, orthographic and lexical knowledge. They are combined in the pattern synthesizer to draw the meaning out of context.

In this model, the words in the text carry the isolated meanings of the words in the dictionary, this disadvantage is highly probable to cause ambiguity to the reader because the meaning of the word in the context might be different from the meaning explained in the dictionary. The ambiguities may be at the semantic and syntactic level. These deficiencies can be eliminated through taking the top-down processing into account in the reading process.
4. TOP-DOWN PROCESSING

The recent innovations in the theory of reading set forth a new term in the field of language teaching. One of the most significant changes in reading theories is the "top-down" concept. The top-down process is based on the background knowledge. Through making expectations as to the text content, the reader develops an idea in his mind, and the idea changes so long as the flow of input from the text is supplied to the reader. The input from the text is checked against background knowledge, so the cycle goes on continuously until the reader reaches a certain decision about the content of the text. Carrell (1988) makes clear the phenomenon in the following quotation:

Top-down processing is the making of predictions about the text based on prior experience or background knowledge, and then checking the text for confirmations or refutations of those predictions. (p.101)

The main idea lying behind the term "top-down" is making use of the parts to complete the whole stored in the text or in any material.

This process makes clear that getting a picture of the whole is not achieved only through the bottom-up process (data-driven), but also through the top-down process (conceptually-driven). When both of the processes are in
action, the reading process occurs in both directions. According to Krashen (1985), the reader makes predictions about the meaning of the text through these processes, and hypothesizes the predictions through the already gained knowledge. Krashen's statement leads the materials designers to be aware of the importance of the background knowledge. With the inclusion of top-down processing to explain the reading process, the interactive model came out as the latest model.

5. INTERACTIVE READING MODEL

The reading models have changed rapidly. This change has affected the concept of reading a great deal. According to Grabe (1988), the duration of the transition was immense:

In the last ten years, the accepted theory of ESL reading has changed dramatically, from a serial (or bottom-up) model, to reading as an interactive process. (Grabe: 1988:56)

In the interactive reading model, the flow of information goes both ways: from the text to the reader and from the reader to the text, and a combination of both of these processes in the reader's mind enables the reader to draw conclusions.

The meaning "interactive" derives from the relation between the input from the text and the reader's schemata, which are preexisting knowledge structures in the reader's
mind. According to this theory, the meaning is created through an interaction between the text and the background knowledge. While reading, the reader keeps the background information in his mind and checks it with that received from the text to come to a decision. To perform this action, two processes are involved during the interaction: bottom-up or (text-based processing) and top-down or (knowledge-based) processing. This processing is called as the schema theory.

6. THE SCHEMA THEORY

Recent research on the cognitive processes of the human brain claims that the reader deduces the meaning the writer intends to convey. The flow of information is achieved by the help of the textual input and the reader's schemata. According to the schema theory, comprehension is a bidirectional process as Carrell and Eisterhold state (1983): comprehending a text is an interactional process between the reader's background knowledge and the text (p.556).

Drawing meaning from the context involves more than the linguistic knowledge of the reader; the ability to relate the textual material to one's knowledge is also important (Carrell P. and Eisterhold J. 1983). According to the schema theory of comprehension, to read is to being
able to fit the new information into the knowledge already gained. When the students encounter a novel situation, they go through a process to cope with the new input. This situation could be applied to language learning in an academic setting:

Students often lack well-developed schemata so important to a comprehensive understanding of their academic reading materials. Even having the appropriate schema, students sometimes fail to utilize what they already know in their efforts to understand the new information they are reading. (Melendez and Pritchard 1985:400)

To solve the problem of the comprehension in reading materials, some methods were developed; these methods activated the background knowledge to increase the rate of comprehension.

6.1. Activating background knowledge:

6.1.1. Organised Method

The following list from Carrell (1988) features methods which facilitate reading comprehension through activating the background knowledge.

a. Language Experience Approach
b. Extending Concepts through Language Activities
c. Directed Reading-Thinking Activity
d. The Experience Text-Relationship method
e. The PreReading Plan
f. The Survey-Question-Read-Recite-Review-Method

These methods help the reader to activate the background knowledge. They help the reader in some certain ways; each has a different purpose:

a. Creating text themselves
b. Setting a communication purpose for reading
c. Predicting what a text will be about
d. Sharing prior experience on the topic
e. Free associating on the topic
f. Surveying the text
g. Discussing the text
h. Writing their interpretations
i. Reviewing the text to conform hypotheses or prove conclusions
j. Relating the text content to prior knowledge
k. Formulating knowledge

This prior activation may be used in combination with each other for different purpose for reading. In addition to the methods that activate the background knowledge, there are some activities that enhance the background knowledge in the class as well.

6.2. Building background knowledge

The background knowledge is one of the most important
components of the interactive model. According to this model, the more background knowledge a reader has in his schema, the better the reader comprehends the text. This is because background knowledge facilitates comprehension, as Johnson (1982) mentions:

..., familiarity with a foreign culturally related topic, knowledge obtained from real experiences in the foreign culture, is effective for reading comprehension of a passage on that topic. (p.514)

If we accept this idea as truth, some reading problems may partially be due to lack of adequate background knowledge. In other words, if the reader does not have sufficient knowledge in the field he deals with, his comprehension will not occur so easily. This is pertinent to all the content areas. However, the emphasis here is on the pedagogical side of the matter in question: readers in EAP (English for Academic Purposes) courses.

If we believe in the importance of background knowledge in respect to taking remedial precautions to develop reading comprehension, we, those who try to improve reading materials, can not ignore the following question set forth by Carrell:

Can we improve the students' reading by helping them build background knowledge on the topic prior to reading, through appropriate activities? 1988c.:245)
It is worth debating whether reading problems are the consequences of insufficient background knowledge. The problem is to find the effective ways to enrich and increase the amount of background knowledge. The necessary background knowledge can be built through lectures or various other types of prereading activities; Carrell (1988) suggests the following:

a. viewing slides, pictures
b. role-play activities
c. text previewing
d. field trips
e. demonstration
f. class discussion or debate
g. plays
h. text previewing
i. introduction and discussion of the key vocabulary
j. key-word/key-concept association activities
k. prior reading of related text

To activate schemata, there are mainly three types of reading activities: prereading, during reading, and post reading. These activities enhance the comprehension of the text.
6.2.1. Prereading activity

In a prereading activity, the students are expected to form expectations about the content. This could be supplied through prediction about the new information. Langer's PREP method is one of the most helpful tools for activating the schema as prereading activity. Through this method, the reader constitutes a map of meaning about the novel situation they have not met before.

The prereading activity, as the name implies, is the type of an activity conducted prior to dealing with the main text. These activities activate the readers' prior knowledge relevant to comprehending the reading material. These activities not only facilitate comprehension but also make reading more enjoyable, meaningful and easier. These activities include:

6.2.1.1. Pictorial context

The students are shown pictures or slides related to the topic of the reading material, and they are asked to describe the content of the passage; in other words, they guess about the context.

6.2.1.2 Vocabulary preteaching

The students are taught a few key words of the passage in unrelated passages. This helps them guess the meaning of the words in the context of the reading passage.
6.2.1.3. Prequestioning

The students are given a sentence summarizing the whole passage. The students are asked to generate some questions which they think that they may find the answers to while reading.

As Steffenson and Yorio point out, prereading activities help the students solve many problems during the reading of the text:

These three prereading methods are intended to help EFL students overcome three major problems that interfere with their comprehension: (a) lack of vocabulary knowledge, (b) difficulty in using language cues to meaning, and (c) lack of conceptual knowledge.

(in Johnson, Taglieber and Yarbrough 1988:457)

The prereading activities also motivate the students. According to research conducted in a Brazilian college, students said they found it helpful to do prereading activities before reading (Johnson, Taglieber and Yarbrough 1988:468). Those prereading activities are the practical side of the organised methods in building background knowledge.

6.2.2. During reading activity

In during-reading activities, the purpose is to make mid-reading predictions as to how the text will end. In this type of activity, the students may be expected to complete
the rest of the text on the basis of the previous knowledge from the text. This could be practised more than once in the activity. The completion of the passage enables the students to improve their writing skill while reading a text. In addition to the completion of the text, this part can be used as a discussion through letting the students express their opinions making use of the content of the text; therefore, the texts whose subject are debatable are most suitable for an activity of this sort.

6.2.3. Post-reading activities

The purpose of these activities is to promote the improvement of high level thinking skills. This activity is achieved through the selection of appropriate questions; for example, open-ended questions require the students to evaluate, and justify. (Melendez and Pritchard 1985)

7. NEEDS ANALYSIS

"Why do learners need to learn English?" is a good question as a starting point prior to making an introspective analysis of the materials the learners use in an educational setting. Collecting enough data about the factors related to materials development may be the most important prerequisite step before evaluating and developing the existing materials of the students and teachers. Questionnaires, interviews, and observations are several effective and efficient ways of
collecting data about the needs of a certain group of students and teachers. The analysis is carried out through taking some factors into consideration:

Necessities are the requirements of the learner to meet the demands of the target situation. For instance, different groups of people doing different jobs need to learn English for different purposes. Hutchinson and Waters (1987) mention the importance of the demands of people through these features:

He or she will presumably also need to know the linguistic features-discoursal, functional, structural, lexical—which are commonly used in situations identified (p.55).

Another factor to be taken into consideration prior to conducting a needs analysis is lacks. This term refers to the gap between what the learner knows already and what he will know.

Needs is the subjective view of language learning. According to Hutchinson and Waters (1987), needs can not be regarded alone, but with the environmental factors and data about people, because it is the people who build their images of their needs.

8. TYPES OF THE TEXTS

In an academic setting for language learning,
various types of reading materials are provided to increase the probability of alleviating the burden of reading for both the students and the teachers, and to meet the individual differences of the students attending any program. However, only some of those reading materials may be appropriate to the levels and needs of the students; for this reason, the selection of the texts that are appropriate to the needs of the students is crucial. There are 4 types of the reading materials for EST (English for Science and Technology) courses:

8.1. Genuine materials

This type of text is directly received from real sources, for example, books, magazines, and encyclopedias. Genuine materials could be easily used in an educational setting when the majority of the class is homogenous in respect to culture. The content of the text can be changed, but not the language. Trimble (1985) states the distinction as follows:

While we can vary the technical level of the subject matter by choosing our texts carefully, we can do little about the language - either the structures or the lexis (p.28).

Therefore, this type of materials is considered to be more suitable for advanced level students.
8.2. Adapted materials

These materials enable the learner to focus only on the points that are to be emphasized. Therefore, when compared to the genuine materials, it is easily observed that some problems can be eliminated, for the material allows the teacher to make minimal changes through adaptation:

Texts taken from one or other of the types of publication......can be modified in order to highlight a point or points of linguistic interest or to reduce reading difficulty by simply certain structures. (Mackay and Mountford 1979:123)

However, the adaptation has to be kept minimal, otherwise, the result will not be beneficial.

8.3. Synthesized materials

Synthesized materials are the texts collected from 'genuine materials' from two or three sources. Only some "genuine" parts are included, the rest can be omitted depending on the needs of the materials designer.

8.4. Created materials

These are original materials. This type of material requires great deal of time and effort to prepare. The writers' control over created materials is greater than the other types.
9. MATERIALS EVALUATION MODELS

9.1. Materials evaluation process of Hutchinson and Waters

Every teacher, to some extent, is certain to be faced with the preparation, evaluation and development of materials. Materials evaluation is an important process for enhancing the quality of materials. Through evaluation, materials are adapted to the needs of the students, teachers and the society. The result can be very beneficial for both teacher and students. Materials evaluation is an indispensable process of modern education. Through materials evaluation, a lot of techniques and ideas are learned from the existing materials written by the other authors. Hutchinson and Waters propose evaluating the existing materials in four steps (see figure 3):

a. Defining criteria
b. Subjective analysis
c. Objective analysis
d. Matching

After defining the criteria, the objective analysis and subjective analysis are done to make clear to what extent they are compatible with each other. There might be contradictions; however, one aspect of a book may match the
criteria in respect to content, but may not match the
criteria in respect to methodology or vice versa. In such a
case, the decision can be made by taking the teacher's and
students' needs into consideration.

Materials evaluation chart:

![Diagram showing the materials evaluation process]

Figure 3. The materials evaluation process. (From Hutchinson and Waters 1987:98)
9.2. A preliminary checklist model for materials development of Dwyer

Another way of evaluating the materials is the checklist; some items are listed regarding the features of the materials. This type of materials evaluation is practical; therefore, a chart or a checklist can be very beneficial to use a chart for the purpose of materials evaluations as a preliminary checklist. The following figure (see figure.4) is a good example of this type:

<table>
<thead>
<tr>
<th>SELF-CHECK QUESTIONS</th>
<th>YES</th>
<th>NO</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does this exercise clearly lead to ultimate program goals?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Is the purpose of the exercise clear and consistently realized?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Is realistic language use reflected?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Are instructions clear and complete?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Are items consistent?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Is the length appropriate?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Is the exercise free of contaminating elements?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Are the items unambiguous?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Across exercises, is a variety of techniques employed?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Has adequate use been made of printed and human resources?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4. A preliminary checklist for materials development (From Dwyer 1984:8)
Figure 4. is one model for the evaluation of materials; through this check list, the weaknesses of the existing materials can be determined, and making use of the results of the table, modifications or adaptation can be applied. In the following items, Dywer (1984:8) gives the explanation of the self-check list in detail:

1. Without any goals in designing the materials, the enterprise for that purpose will be an aimless effort. The goals are to be mentioned before developing the materials.

2. This principle is related to the clarity and unity of purpose. The purpose for writing the exercises should be made clear.

3. Because the class is the only place for the student to practise the language they learn, the language should not be artificial, but natural.

4. The instructions are to be clear enough not to cause any confusion.

5. Every exercise in the activity could be done according to the instructions.
6. The length of the exercises should be long enough to meet the objectives.

7. The exercise should be pure; it must be isolated within the objective of the exercise from unknown vocabulary, etc.

8. The materials should not cause confusion and leave the student thinking that there is ambiguity.

9. Because of individual differences in learning a foreign language, variety of techniques are supplied for they enable most of the students to be involved in the activity.

10. Other writers' materials and techniques are to be made use of prior to designing a material appropriate to our situation.
10. CREATIVITY IN ESP MATERIALS

Prior to designing any material, three factors are to be considered: creativity, interest, and relevance of the material to the subject matter, as pointed out by Waters and Hutchinson (1982):

The main cause of low student interest in ESP materials is that they are too often uncreative; the scope of the language activities they attempt to engage the learner in is limited; and their knowledge content is largely unexploited (p.100).

Taking creativity into consideration while designing the materials requires the guidance of affective factors, which claim the learner must be motivated before thinking actively; Hutchinson and Waters (1987) regard the emotional reaction as an indispensable element to initiate the cognitive process.

Materials should be designed in such a way that they supply the language learner with appropriate conditions for the activities to motivate the learner emotionally. When the students have high motivation, they are encouraged to use the language communicatively rather than structurally. Phillips and Shetlesworth (1985) support the idea of creating the conditions to use the language communicatively inside of the classroom:
ESP materials are designed as teaching materials and their centrality in the teaching situation consequently tends to reinforce the peculiarities of classroom discourse. This is not necessarily an insuperable criticism: it entails the necessity of creating the conditions for activities which encourage the student to transfer the language taught in the classroom to use in communicative situations (p.104).

Using the language creatively entails the use of appropriate models for the materials.

11. THE MODELS FOR ESP MATERIALS

There have been many changes in the models for ESP up to now. The figures given below are the models developed by Hutchinson and Waters (1982) from poorer to better ones:

![Diagram](image)

**Figure 5 Language-oriented model (p.100)**

In figure 5, input represents the kind of a text as a source for the students to practise the foreign language exercises. The structurally-based approach is incorporated in this model. Language represents the linguistic side of
the material: grammar. In materials design, linguistic competence is an essential element as Morrow (1981) says:

"...notwithstanding everything written about the importance of 'use', it is possible and may in certain cases and contexts be legitimate to focus on the forms of the language...Finding ways to reconcile these two aspects of language in the classroom represents the biggest challenge for our profession in the 1980s (in Hutchinson and Waters 1982:101).

However, in this model two significant features are missing: content and task.

Figure 6. Content-based model (Hutchinson and Waters 1982:100)

In content, language is regarded as a means to convey the message. Learning about language in a foreign language setting is not the purpose, however, the purpose is to learn the language by making use of relevant and interesting contexts as a content.

To solve the communication problem, the students are expected to use the language and the context creatively including their abilities, experiences and background.
In a language-oriented model, students are sometimes bored and not well-motivated because of the lack of opportunity to use the foreign language. In a content-based model, the student is also frustrated because he is denied the language knowledge that helps him do the set task (Hutchinson and Waters 1982:101). It is now easy to combine both models or the four elements: language, content, task and input.

![Diagram of combined model](image)

**Figure 7. Combined-model (p.109)**

In this combined model (see Figure 7) the content and task are included with the input and language. This model is compatible with the other two mentioned before: content-based and language-based model. In preparing an input text, our criteria should be:

a. Natural communication
b. Compatible with learners' needs and interest
c. Capable of generating useful language work
There are other features to be added in addition to the model (see figure 8). These are starter, students' own knowledge and abilities, additional input, and project.

![Diagram](image)

**Figure 8. (From Hutchinson and Waters 1982:111)**

The contextualization of the knowledge is done in the starter. It activates the student's background knowledge. There has to be a connection between the basic information in the input and the students' own interest and needs. If we encourage the student to use structure acquired in the input with the contribution of their knowledge and abilities, the possibility of a transfer of learning to the
students' own situation is greater (Hutchinson and Waters 1982:110).

The additional input is introduced at any point to provide a wider range of context for the transfer of the knowledge. The students may be asked to extend their studies by doing an assignment in line with the task; this is called project.

12. GUIDELINES FOR SELECTING AND ADAPTING THE MATERIALS

In language teaching at all levels, there have always been guidelines to help the language educators determine the materials to be used in an educational setting. These guidelines based on the needs of the learners have to be selected carefully. Bowen and Madsen (1978) assert:

Choosing materials for an educational program without giving careful thought to the situation in which they are going to be used may not be quite as inefficient as shooting at a target while blindfolded, but it is inefficient.... materials should be selected, adapted, and evaluated in the context of all considerations important to the design of the whole program (p.195).

The following list proposed by Bowen and Madsen (1978) determines the principles to be followed in the selection of the materials:

1. Definition of the students
2. The general instructional objectives
3. The specific performance objectives
4. The conditions of the learning situation
5. A statement of beliefs about learning and teaching
6. The classroom calendar
7. The budget
8. The selection and adaptation of materials

These items help the educators select the materials easily.

13. MOTIVATION

In ESP materials, motivation is created predominantly by the learners' interest in the content of the materials. Motivation can be supplied by taking two different factors into consideration.

13.1. Type of content

There are a great number of sources to increase the variety of ESP materials. These sources include newspapers/magazines, cartoons, conversations, consumer information leaflets, captioned diagrams, advertisements, maps, literary texts, and texts incorporating a wide variety of visuals, e.g. photographs, unusual perspectives, color, one of the ways of increasing the interest in ESP materials is to add the notion of humour to the content, for
example, a series of funny drawings related to the content and in line with the language.

13.2. Treatment of context

The level of the learner's knowledge in respect to language or context must be compatible with the materials presented. Linguistically simpler texts have an inclination to simple context so the learner loses interest. To put it other way, the higher the language level, the more complex it is. Keeping the balance between the actual level of the student and the material is crucial. The solution to this problem can best be found through supplying the students with the material compatible with their actual level and background.

14. INDIVIDUALIZED READING

The reason for "individualized reading" is keep the students' interest high. To maintain their interest in the classroom, the students are allowed to bring the reading material they are interested in. They are not tested on what they read, however, they need careful training. Through individualized reading, it is possible to teach reading skills, as Walker (1987) claims:

....., in order for a reading course to be most effective 'cost-effective' for the students, a solution is for them to bring their own texts
to work on: their valuable time is not wasted, since they read in the class what they must read anyway, and simultaneously they are helped to acquire the language of their particular discipline (p.47).

The point worth mentioning here is the flexibility in respect to choosing the reading material to reduce the anxiety and increase the interest on the part of the student. The important factor, motivation, is not ignored in this model of reading. Walker (1987) claims that motivation receives greater attention in reading a foreign language than reading in the mother tongue.

15. READING FOR ACADEMIC PURPOSES

In an educational setting, especially in higher education, reading receives particular attention because information transfer is carried out through this receptive skill. In academic reading, the purpose is two fold; Sekara (1987) draws a distinction between understanding the syntax and semantics, and the specific aspect of academic reading: main idea, generalization, classification, etc.

In academic reading, the students are expected to acquire certain skills which will enable them to be competent in their academic studies. Those skills may include drawing the main idea, generalization, and classification. This type of academic reading (Reading for Academic Purposes-RAP) is
offered under different titles in universities all over the world, for example, Intensive English Programs, Advanced Level Reading, and English for Study Purposes.

As Sekara mentions above, the purpose for academic reading is not only to acquire the academic skills for better reading but also to get into the depths of the syntactic and semantic knowledge of the language. Listed below are the aspects (subskills) of Reading for Academic Purposes:

Figure 9. Aspects of academic reading in RAP (Sekara 1987)

16. CONCLUSION

In the review of literature, the background of the reading models was investigated, and the advantages and
disadvantages of particular models of reading were mentioned. Prior to developing reading materials, the professional literature advises the materials designers to carry out a needs analysis to determine the necessary criteria for preparing the material. Types of texts were investigated, and few materials evaluation models were briefly mentioned; however, what receives attention in the review of literature is the current criteria determined by the authors that shape the formation of the (reading) materials. Listed below are the criteria determined through the review of literature:

1. Background knowledge enhances the rate of comprehension. This can be achieved through prereading activities such as discussion as to the content of the topic, vocabulary preteaching, and prequestioning.

2. Motivation is an important factor in increasing student's comprehension.

3. The material is considered to be beneficial if the three factors: creativity, interest, and relevance are taken into consideration.

4. If the reading materials are designed for academic purposes, they must serve both syntax and semantics, and the specific aspect of academic reading.
1. INTRODUCTION

As the topic of the thesis implies, developing reading materials for EAP courses at the graduate level in Ankara University, the study required research on the development of reading materials for this specific group of students. The study was carried out through two types of research: descriptive and library. In descriptive research, the graduate science students at Ankara University were given a questionnaire. The results of the questionnaire analyses presented the essential criteria prior to developing the reading materials appropriate to the characteristics and needs of the prep students. However, the materials were not developed by taking only these criteria into consideration. The studies of other people on the same subject offered guidance for the development of the reading material. These studies were explained in the review of literature.

Both the results of the analyses and the information obtained from the literature review determined the criteria (principles) to develop original reading material.

2. TYPES OF RESEARCH

As mentioned earlier, this study required two types of research: descriptive, and library.
2.1. Descriptive research

In this research, the current status of the prep school was scrutinized in respect to the scientific reading materials. Students' opinions on reading text books in use and their expectations in a text, such as the factors that enhance the comprehension were collected through a questionnaire. Interviews were also another way to collect data and to prepare the questions for the questionnaire. While interviewing the students, it was easier to get their opinions about the reading materials, and learn their expectations about the material and prep school. For a researcher, to get their expectations about the prep school was as important as to get their opinions about the materials because the goal of the program is to make them competent in reading scientific texts written in English.

2.2. Library research

In the first stage of the library research, articles, books, and journals were investigated. The reading models were studied in detail. In this section, the principles for academic reading were determined; these principles also included the selection, development, and organisation of the materials.

In the second stage, sample scientific passages besides reading techniques (branching, paragraph techniques)
appropriate to the needs of the science graduate students at Ankara University were investigated in the published reading materials. These techniques were applied in line with the principles determined in advance.

3. THE PURPOSE OF THE STUDY

Because of the fact that all of the students attending the prep school are science students, what they need for their studies is to use English to read authentic scientific materials. A problem arises: "How to make them competent in reading in a very short time?" Therefore, the reading materials have to be written in the way that will meet the students' academic needs based on the findings from the questionnaire and interviews.

4. PREPARATION OF THE QUESTIONNAIRE

The questionnaire was based on relevant parts of some materials evaluation models. Some of the questions were borrowed from the evaluation models, e.g. Hutchinson and Waters (1987) and Dywer (1984). Some of them were adapted. However, these materials evaluation models were not the only source for the preparation of the questionnaire. Some items were prepared according to the characteristics and needs of the students attending the prep school. The questionnaire consisted of seven sections (see appendix A), the first section is about the sex, language experience and age of the
The second section asks the opinions of the students about the skills they give importance and the purpose of their reading. The third section is about the factors that affect the reader's comprehension in respect to characteristics of the text and the reader himself. The fourth section is about the type of the reading material they are interested in.

The next section covers some general statements and additional opinions about reading. The sixth section is a survey about the reading materials in use in prep school. The final section asks for any suggestions about the scientific reading materials.

5. DEVELOPING READING MATERIALS

In this study, three original reading materials (see Appendix C) were developed for science graduate students in Ankara University. The reading passages were borrowed from other sources, and the exercises were adapted in line with the result of the questionnaire, interview, and the review of literature. Some activities in the developed reading materials were also borrowed from other sources and some activities were written originally. The emphasis was on the reading material techniques developed originally besides the exercise types. The activities were developed with the result of the questionnaire, interview, and the review of
literature results. The purpose of these original materials is to eliminate the boredom the conventional textbooks might cause.

6. SUMMARY

Three reading materials were developed for the graduate level science students in the following steps:

- Through a review of literature, the criteria for the materials development were determined.

- Another set of criteria was established through a questionnaire, and interviews with the students as to the current status of the reading materials.

- These two sets of criteria were matched.

- Original reading materials were developed using these criteria.
CHAPTER 4
PRESENTATION AND ANALYSES OF FINDINGS

1. INTRODUCTION

The analyses are based on two types of research: unobtrusive and obtrusive; in the former type, the students were given a questionnaire to get a hint as to their expectations about the reading materials they hope to read while attending an English course, and second unobtrusive research is the review of literature. In the latter type of research, the students were interviewed about the reading materials in use and the materials they wish to use.

2. ANALYSES OF THE FINDINGS

The data for the analyses was obtained from the questionnaire administered solely to 90 students attending the prep school in Ankara University, 40 of whom were female, 50 of whom were male.

The students were handled in different groups: their sex, years of English study, and age; these were the independent variables while the students' opinions about the skills, the factors that help them comprehend the reading material, the importance of the background knowledge, types of the reading materials they are interested in, and the like were the dependable variables. In the actual discussion of
the data analysis, the sex of the respondents was deemed unimportant. The questionnaire was designed to get the opinion of the prep students categorized into four groups in respect to language learning experience.

- a. less than one year
- b. from 1 to 3 years
- c. from 4 to 6 years
- d. more than 6 years

The students were again divided into four sections in respect to age differences. In the tables, the age differences are symbolized with the capital letters: A, B, C, D; each representing the various age groups less than 20, 20-22, 23-25 and over 25 years, respectively. Experience age, and number of the students selecting the choices are included in every table.

The questionnaire in this study was analyzed in respect to:

- a. total number of the students regardless of departments
- b. departments
The results in respect to those variables which were analyzed by the investigator, but not deemed relevant to the discussion are provided in appendix B.

Table 1

<table>
<thead>
<tr>
<th>IN YEARS</th>
<th>&lt; 1</th>
<th>1-3</th>
<th>4-6</th>
<th>&gt; 6</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>N(student)</td>
<td>0</td>
<td>16</td>
<td>27</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>WRITING</td>
<td>-39</td>
<td>76</td>
<td>17</td>
<td>-9</td>
<td>-</td>
</tr>
<tr>
<td>SPEAKING</td>
<td>-43</td>
<td>69</td>
<td>25</td>
<td>-6</td>
<td>-</td>
</tr>
<tr>
<td>READING</td>
<td>-32</td>
<td>52</td>
<td>8</td>
<td>-5</td>
<td>-</td>
</tr>
<tr>
<td>LISTENING</td>
<td>-46</td>
<td>73</td>
<td>19</td>
<td>-10</td>
<td>-</td>
</tr>
</tbody>
</table>

* The capital letters A, B, C, D at age section represent the age differences: A, B, C, D, less than 20, 20-22, 23-25, more than 25, respectively.

In Table 1, the relative importance of the skills in students' opinion is shown. The students were required to express their opinions by numbering the four skills using the numerical scale ranging from 1 to 4; (1) means the more important skill to students; therefore, the smallest number is the students' first choice. By adding the rank value for
each of the skills across the responses from the 90 students' in our sample, it is possible to obtain indication of how the entire group ranked these skills. The lower the sum, the higher the group as a whole ranked the skill. Below the rankings of the skills are put in their order of importance:

1. reading 184
2. speaking 220
3. writing 242
4. listening 254

It is easy to infer from the chart that the expectations of the students in respect to the development of the skills do not make prominent differences among each other.

Table 2

<table>
<thead>
<tr>
<th>AS TO WHAT IS IMPORTANT IN READING</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN YEARS</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>AGE.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>COMPRE</td>
</tr>
<tr>
<td>AWARE</td>
</tr>
<tr>
<td>VARIETY</td>
</tr>
<tr>
<td>TRANSL</td>
</tr>
</tbody>
</table>

Table 2 illustrates the importance of the various items
in reading in the same evaluation process; 1 represents the most important item among the rest. In this table, there are four items to be compared with each other; the students were asked to put them in order of importance. In Table 2, the students expressed their opinions as to what is important in developing reading skill. From Table 2, it is again easy to arrange these in order of importance as follows:

a. comprehending every detail in the passage 207
b. having a variety of techniques such as scanning, etc 217
c. being aware of what is in the passage 228
d. being able to translate the passage 248

According to this order, the comprehension of the details in the passage is more important than the others.

Table 3

<table>
<thead>
<tr>
<th>CHARACTERISTICS OF A GOOD READING TEXT</th>
<th>&lt;1</th>
<th>1-3</th>
<th>4-6</th>
<th>&gt;6</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN YEARS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGE A B C D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PICTURE</td>
<td>7  17 5</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>EXPLANA.</td>
<td>15  26 7</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>COMP. QU.</td>
<td>12  18 5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>ACTIVITY</td>
<td>9  15 3</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>SHORT &amp; M.</td>
<td>13  19 4</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>LONG &amp; E.</td>
<td>7  12 4</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>

52
Table 3 concerns the characteristics of the text the students were interested in to make use of in a text as a reading material. The students were asked to choose the four most helpful from the six items; they did not have to mark all of the items that would be useful in their opinion. In contrast to Table 2, the higher the number, the more important the choices therefore, it is easy to infer from Table 3 that the second item "explanation" receives higher attention than the other five.

It is also possible to put them in order of importance:

a. good explanation of the exercises given by the reading materials 84
b. short but meaningful passages 65
c. comprehension questions 57
d. picture, graphs, etc 55
e. activities such as fill in the blank 52
d. long but easy passages 42

They did not give much credit to the long but easy passages but to the good explanation of the exercises given by the reading materials and short passages.
Table 4

<table>
<thead>
<tr>
<th>FACTORS THAT ENHANCE THE READER’S COMPREHENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN YEARS</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>INTEREST</td>
</tr>
<tr>
<td>BACKGRD</td>
</tr>
<tr>
<td>ORGANISA</td>
</tr>
<tr>
<td>UNK VOC</td>
</tr>
<tr>
<td>KEY VOC</td>
</tr>
</tbody>
</table>

Table 4 is devoted to factors that are highly probable to enhance the reader’s comprehension. In the questionnaire, the students were required to mark the only three from five alternatives. In this table, the importance of background knowledge was considered to be the most important factor among the rest; the higher the number, the more important the factor for the students as in the previous table. These factors can be put in an order of importance as follows:

1. background knowledge 71
2. key vocabulary 64
3. reader interest in the content of the passage 54
4. knowledge of the organisation of the text 42
5. knowing all the unknown vocabulary 41
From Table 4, it can be inferred that the more familiar the reader with the text, the better the reader comprehends the reading material. The key vocabulary was considered to be the second important factor that affects comprehension.

Table 5

<table>
<thead>
<tr>
<th>TYPES OF TEXTS STUDENTS ARE INTERESTED IN</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN YEARS</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>AGE</td>
</tr>
<tr>
<td>SCIENCE</td>
</tr>
<tr>
<td>SOCIAL</td>
</tr>
<tr>
<td>STORY</td>
</tr>
<tr>
<td>NEWS P.</td>
</tr>
</tbody>
</table>

Table 5 is related with the content of the reading texts the students were interested in reading. They were told to choose a scale ranging from 1 to 4; 1 representing the most important choice According to this scale, scientific texts were considered to be the most useful types of reading materials. It is highly probable that they chose this type of reading material because they were science students. Making use of Table 5, the choices can be put in order of interest in the following way:
1. scientific texts 154
2. newspapers or magazines 192
3. texts about social facts 276
4. stories, novel, etc 278

This section covers only the students' opinions as to general statements about reading.

<table>
<thead>
<tr>
<th>General statements about reading</th>
<th>yes</th>
<th>no</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reading is a difficult task</td>
<td>22</td>
<td>68</td>
</tr>
<tr>
<td>2. If I know something about the content of the material, it helps me understand it.</td>
<td>87</td>
<td>3</td>
</tr>
<tr>
<td>3. If I can see how the text is organised, I find it easier to understand.</td>
<td>77</td>
<td>13</td>
</tr>
<tr>
<td>4. Long reading materials are difficult to read.</td>
<td>46</td>
<td>44</td>
</tr>
<tr>
<td>5. If I am interested in the reading material, I comprehend more easily.</td>
<td>82</td>
<td>8</td>
</tr>
<tr>
<td>6. Having both a supplementary book and a main text is more useful than having a main text alone.</td>
<td>77</td>
<td>13</td>
</tr>
<tr>
<td>7. If the reading material is full of diagrams and pictures, I comprehend the text more easily.</td>
<td>72</td>
<td>18</td>
</tr>
<tr>
<td>8. If the reading material is informative, it is easier for me to comprehend.</td>
<td>62</td>
<td>28</td>
</tr>
<tr>
<td>9. I comprehend the text much better if I read short, but meaningful passages.</td>
<td>72</td>
<td>18</td>
</tr>
<tr>
<td>10. If I do some pre-reading activities, I feel ready for the main text. (e.g. Talking about the topic, etc.)</td>
<td>84</td>
<td>6</td>
</tr>
<tr>
<td>11. If I learn the key vocabulary before I read the passage, I comprehend more easily.</td>
<td>81</td>
<td>9</td>
</tr>
<tr>
<td>12. If I feel free for selecting the reading materials I am interested in, comprehension occurs more easily.</td>
<td>78</td>
<td>12</td>
</tr>
</tbody>
</table>

This section consists of twelve statements about reading. These statements were answered with "yes or no".
The answers obtained from this section, to some extent, is a verification of the questions and statements in other sections.

According to Table 6, reading was not considered to be a difficult task for the students. The background knowledge (Table 4), student interest in reading material (Table 4) help of key vocabulary (Table 4), short and meaningful reading materials (Table 3) were considered to be very important. In respect to these above-mentioned items, they were not contradictory with each other.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>background knowledge</td>
<td>87</td>
<td>3</td>
</tr>
<tr>
<td>student interest</td>
<td>82</td>
<td>8</td>
</tr>
<tr>
<td>help of key vocabulary</td>
<td>81</td>
<td>9</td>
</tr>
<tr>
<td>short but meaningful passages</td>
<td>84</td>
<td>6</td>
</tr>
</tbody>
</table>

The other items also give some hints as to the characteristics of the reading materials the students wanted to use while learning English; these are informative text rather than an ordinary English text book alone, help of prereading activities for comprehension, an option to select
the reading material the students were interested in, and the help of the diagrams.

It is also possible to display the same table in percentages to analyze more easily as in the following table:

<table>
<thead>
<tr>
<th></th>
<th>Percentage of the result of the findings according to &quot;yes or no&quot; type answers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentages</td>
</tr>
<tr>
<td>n=90</td>
<td></td>
</tr>
<tr>
<td>1. Reading is a difficult task</td>
<td>24  76</td>
</tr>
<tr>
<td>2. If I know something about the content of the material, it helps me understand it.</td>
<td>97  3</td>
</tr>
<tr>
<td>3. If I can see how the text is organised, I find it easier to understand.</td>
<td>86  14</td>
</tr>
<tr>
<td>4. Long reading materials are difficult to read.</td>
<td>51  49</td>
</tr>
<tr>
<td>5. If I am interested in the reading material, I comprehend more easily.</td>
<td>91  9</td>
</tr>
<tr>
<td>6. Having both a supplementary book and a main text is more useful than having a main text alone.</td>
<td>86  14</td>
</tr>
<tr>
<td>7. If the reading material is full of diagrams and pictures, I comprehend the text more easily.</td>
<td>80  20</td>
</tr>
<tr>
<td>8. If the reading material is informative, it is easier for me to comprehend.</td>
<td>69  31</td>
</tr>
<tr>
<td>9. I comprehend the text much better if I read short, but meaningful passages.</td>
<td>80  20</td>
</tr>
<tr>
<td>10. If I do some pre-reading activities, I feel ready for the main text. (e.g. Talking about the topic, etc.)</td>
<td>93  7</td>
</tr>
<tr>
<td>11. If I learn the key vocabulary before I read the passage, I comprehend more easily.</td>
<td>90  10</td>
</tr>
<tr>
<td>12. If I feel free for selecting the reading materials I am interested in, comprehension occurs more easily.</td>
<td>87  13</td>
</tr>
</tbody>
</table>

In Table 7, the same figures (in Table 6) are given in
In the table, it is quite easy to infer that some items in the table receive higher credit than the others: 3rd item; content, 5th item; interest, 6th item; supplementary and a main text book, 10th item; prereading activities, 11th item; key vocabulary, and 12th item; an alternative passage to read. These items are regarded as the factors that help the students comprehend the text; therefore, they cannot be ignored in developing the reading materials.

Table 8

<table>
<thead>
<tr>
<th>Statements about the reading materials at prep school</th>
<th>Reading and Thinking/Scientific Series</th>
<th>Eng. Book</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;The reading materials in the prep school . . . . . . . . . . . are interesting.&quot;</td>
<td>Yes 69 No 21</td>
<td>Yes 55 No 35</td>
</tr>
<tr>
<td>1. . . . . are interesting.&quot;</td>
<td>Yes 69 No 21</td>
<td>Yes 55 No 35</td>
</tr>
<tr>
<td>2. . . . . . . are boring.&quot;</td>
<td>Yes 69 No 21</td>
<td>Yes 55 No 35</td>
</tr>
<tr>
<td>3. . . . . . . are useful in teaching reading techniques.&quot;</td>
<td>Yes 82 No 8</td>
<td>Yes 77 No 13</td>
</tr>
<tr>
<td>4. . . . . . . take a long time to read.&quot;</td>
<td>Yes 82 No 8</td>
<td>Yes 77 No 13</td>
</tr>
<tr>
<td>5. . . . . . . are motivating.&quot;</td>
<td>Yes 82 No 8</td>
<td>Yes 77 No 13</td>
</tr>
<tr>
<td>6. . . . . . . are appropriate to the students needs.&quot;</td>
<td>Yes 82 No 8</td>
<td>Yes 77 No 13</td>
</tr>
<tr>
<td>7. . . . . . . are full of activities.&quot;</td>
<td>Yes 82 No 8</td>
<td>Yes 77 No 13</td>
</tr>
<tr>
<td>8. . . . . . . are helpful in reaching academic goals.&quot;</td>
<td>Yes 82 No 8</td>
<td>Yes 77 No 13</td>
</tr>
<tr>
<td>9. . . . . . . have clear diagrams and pictures.&quot;</td>
<td>Yes 82 No 8</td>
<td>Yes 77 No 13</td>
</tr>
<tr>
<td>10. . . . . . . have clear instruction.&quot;</td>
<td>Yes 82 No 8</td>
<td>Yes 77 No 13</td>
</tr>
<tr>
<td>11. . . . . . . are informative.&quot;</td>
<td>Yes 82 No 8</td>
<td>Yes 77 No 13</td>
</tr>
</tbody>
</table>
The table (Table 8) is about only the technical reading materials currently used at prep students. In the analyses of the technical reading materials, 11 statements were written and the students were required to select one of the two options about each statement: yes or no.

From Table 8, it is easy to deduce that the students do not suffer from the reading materials in use. The results of the Table 8 look balanced in respect to "yes or no" type of statements. It is also possible to put the figures in percentages to analyze more easily as follows:

| Percentages of the result of the findings according to the "yes or no" type answers |
|---------------------------------|-----------------|-----------------|-----------------|
| n= 90                           | Reading and Thinking/Scientific series | Eng. Book       |                 |
| "The reading materials in the prep school . . . . . . . 1. . . are interesting." | 77 23 | 61 39 |
| 2. . . are boring."            | 36  64 | 51 49 |
| 3. . . are useful in teaching reading techniques." | 91  9 | 86 14 |
| 4. . . take a long time to read." | 30  70 | 72 28 |
| 5. . . are motivating."        | 67  33 | 59 41 |
| 6. . . are appropriate to the students' needs." | 76  24 | 68 32 |
| 7. . . are full of activities." | 76  24 | 59 41 |
| 8. . . are helpful in reaching academic goals." | 74 26 | 83 17 |
| 9. . . have clear diagrams and pictures." | 80 24 | 66 34 |
| 10. . . have clear instruction." | 76 21 | 70 30 |
| 11. . . are informative."      | 87 13 | 82 18 |

In Table 9, the percentages make clear that even if the books were considered to be boring by some: 36% yes, 64% no
for the first book; 51% yes, 49% no for the second book, they
were regarded as useful for teaching reading skill with high
percentages 91% yes, 9% no for the first book; 86% yes, 14%
no for the second book. In respect to the abundance of the
activities, the students considered them sufficient: 76% yes
24% no for the first book; 59% yes, 41% no for the second
book. Another high percentages among the others are the
statements as to the diagrams and pictures, instructions, and
informative properties of the reading materials. The
percentages about its diagrams and pictures are: 80% yes 20%
no for the first book; 66% yes 34% no for the second book.
The reading materials received higher percentages from
"instruction and informative section" as well. The results
of the questionnaire about the "clear instruction" is 76%
yes, 24% no for the first book; 70% yes, 30% no for the
second book. The percentage about the informativeness of the
books are: 87% yes, 13% no for the first book; 82% yes, 18%
no for the second book. It is quite clear that they have no
problem with the books instructions, diagrams, activities, and
the informativeness.

3. INTERVIEWING THE STUDENTS

The obtrusive method of data collection is the
interview with the students. The students were asked some questions as to the reading materials and their expectations from the prep school. Through these questions, the students' opinions about the related subject were easy to collect. In the interview, the students were asked almost the same types of questions asked in the questionnaire.

The interview was done among the randomly-selected students, and did not cover the whole student population. The interview was done in the class, and in the staff room wherever the interview was possible. Those interviewed constitute the one-third (approximately 50) of the students.

After interviewing the students, it was found that although the students liked the technical reading materials in prep school, the students suffered from lack of opportunity to use their English, especially orally. They wanted to feel motivated even if they were asked to read technical books written in English. Through the interviews, it was clear that the activities were sufficient to learn the technical patterns well in the books. However, they were not enough to improve the other skills; they expected this gap to be filled by various activities in the class. Most of the students interviewed in the prep school mentioned that the reading materials in the prep school were useful but
monotonous. They also claimed that the materials lacked a section for translation from English to Turkish or vice versa.

Nearly none of the students denied the importance of the background knowledge and interest factors on the comprehension of the text. Due to the fact that in their undergraduate years, they never experienced the prereading activity of learning key vocabulary prior to reading the text, most of them were not aware of this activity; however, they liked the idea of learning the key vocabulary very much. Some of them believed that knowing all the vocabulary is necessary to comprehend the material; however, this only constituted a minority of the students. It was also inferred from the interviews that the students were not accustomed to anticipating the unknown words from the context while reading without looking up the unfamiliar words in a dictionary.

4. CONCLUSION

Nine principles that affect students' comprehension of a reading passage were determined based on the findings obtained from questionnaire and the interviews with the students. These factors contributed to the development of the original reading materials. Listed below are the
principles drawn from the questionnaire analyses and the interviews with the students:

1. The content of the reading materials should be interesting in order to increase the student motivation
2. The reading materials should involve the use of the four skills
3. Activities that enhance the comprehension of the passage such as scanning and skimming are recommended
4. Instructions given by the book should be clear
5. Passages should be short and meaningful
6. Background knowledge should be activated through prereading activities, such as teaching key vocabulary
7. The content of the reading materials should be scientific
8. An optional text can be offered to increase motivation and interest
9. Materials should be designed to arouse student interest
1. SUMMARY OF THE STUDY

Prior to developing reading materials through conducting research in the Review of Literature, and the analyses of the questionnaire and the interviews with the students attending the prep school at Ankara University, some principles were identified. These principles were listed in the related chapters (chapter 2 and chapter 4). They were matched with each other to make sure whether the criteria obtained through questionnaire and interviews are compatible with the criteria proposed by experts in the field of reading. Consequently, the reading materials were developed in line with the result of the both matched criteria: criteria from review of Literature and criteria from the questionnaire and interview analyses.

2. CONCLUSIONS

It can be observed that the results of both two sets of principles are compatible with each other. They were considered as a base for the materials development. Listed below are the matched principles:

1. The importance of background knowledge
2. Motivation factor
3. Interest for the material
4. Creativity

In three original reading materials, these four basic principles are the determinants prior to the development of the materials. The pre-reading activities such as teaching prereading vocabulary, prediction section, etc., were applied. To keep the students motivation high, the topics were chosen carefully, the passages were selected based on the students’ background knowledge. Some activity types are applied to turn the reading lesson into an enjoyable game; this is partially achieved through the reading techniques branching and paragraphing.

The passages were also selected on the basis of the students’ interest; this was done through choosing interesting scientific and current topics. The reading techniques are also another factor that enhances the students’ interest. The activities in the materials help both the students’ motivation and interest high as they serve to their academic needs.

Creativity is provided by supplying the students with debatable points to be discussed in the classroom. This discussion can be done both orally and in written form.

3. SUGGESTIONS FOR FURTHER STUDY

On the condition that future studies would be based on
application of the reading materials developed in this study, an opinion survey as to the efficiency of these materials through a post-activity questionnaire would indicate if these materials are effective. If the development cycle is carried out intermittently, the changing needs of the students can be compensated for. If the content of the reading materials is directed to the more debatable points which allow discussion among the students, the motivation for completing the activity would probably be high. In such a situation, they practise the four skills in the activity, willingly participating in the discussion rather than feeling forced to mention their opinions about the subject. These debatable points can be easily applied especially in the branching type of reading activity because the class is divided into at least two main parts. In the activities, more technical terminology can be supplied to the students. Also, future study requires extensive research both in the content and the linguistic side of the reading materials.
BIBLIOGRAPHY


APPENDICES
APPENDIX-A

QUESTIONNAIRE

Initials: ____________________ Department: ______

I. Circle one of the following:

1. Sex:  a) male    b) female

2. Years of English study:
   a) less than 1 year  b) 1 to 3 years  c) 4 to 6 years  d) more than 6 years

3. Age:
   a) less than 20   b) 20-22   c) 23-25   d) more than 25

II. Rank the following objectives in order of importance
    (1= most important  4= least important).

1. In your opinion, what skill is more important for graduate science students?
   _____ writing
   _____ speaking
   _____ reading
   _____ listening

2. In developing reading skill, what is more important for science students?
   _____ comprehending every detail in the passage
   _____ just being aware of what is in the passage
   _____ having a variety of techniques such as scanning, skimming, guessing or predicting
   _____ being able to translate the whole passage word for word

III. What characteristics in your science text books help you comprehend the reading passage?

1. About the text: mark (X) only the four most helpful
   _____ pictures, charts, or graphs
   _____ good explanation of the exercises given by the reading materials
   _____ comprehension questions
   _____ other activities such as fill-in-the blank exercises, short answer questions following the text
   _____ short but meaningful passages in respect to grammar and vocabulary
   _____ long but easy passages in respect to grammar and vocabulary

2. About the reader: mark (X) only the three most helpful
   _____ interest in the text's content
   _____ some background knowledge about the subject of a reading text before reading
   _____ knowing about the organisation of the text
   _____ knowing all the unknown foreign words in the context before reading
   _____ knowing the key vocabulary of the text before reading
IV. Rank the following types of reading materials in order of interest (1= most interesting, 4= least interesting)

_____ popular science journals
_____ articles about social facts (history, sociology, etc.)
_____ stories, novels, poems
_____ newspapers or magazines

V. Check only yes or no for each item

A. General statements about reading:

1. Reading is a difficult task. yes ___ no ___
2. If I know something about the content of the material, it helps me understand it. yes ___ no ___
3. If I can see how the text is organised, I find it easier to understand. yes ___ no ___
4. Long reading materials are difficult to read. yes ___ no ___
5. If I am interested in the reading material, I comprehend more easily. yes ___ no ___
6. Having both a supplementary book and a main text is more useful than having a main text book alone. yes ___ no ___
7. If the reading material is full of diagrams and pictures, I comprehend the text more easily. yes ___ no ___
8. If the reading material is informative, it is easier for me to comprehend. yes ___ no ___
9. I comprehend the text much better if I read short, but meaningful reading materials. yes ___ no ___
10. If I do some pre-reading activities, I feel ready for the main text. (e.g. Talking about the topic, etc.) yes ___ no ___
11. If I learn the key vocabulary before I read the passage, I comprehend more easily. yes ___ no ___
12. If I feel free for selecting the reading material I am interested in, comprehension occurs more easily. yes ___ no ___

turn the page
V. Answer yes or no about the scientific reading materials you use in the prep school.

"The reading materials in the prep school . . . . "

Reading and Thinking series

13. "... are interesting." yes ___ no ___
14. "... are boring." yes ___ no ___
15. "... are useful in teaching reading techniques." yes ___ no ___
16. "... take a long time to read." yes ___ no ___
17. "... are motivating." yes ___ no ___
18. "... are appropriate to the students' needs." yes ___ no ___
19. "... are full of activities." yes ___ no ___
20. "... are helpful in reaching academic goals." yes ___ no ___
21. "... have clear diagrams and pictures." yes ___ no ___
22. "... have clear instructions." yes ___ no ___
23. "... are informative." yes ___ no ___

VI. Any suggestions about the reading materials used in the prep school:

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
Thank you very much for your assistance and participation

     Sinan ATAY
     Bilkent University
APPENDIX B

DEPARTMENTS OF AGRICULTURE

RELATIVE IMPORTANCE OF THE SKILLS TO STUDENTS

Total number of the students : 54
Writing  157
Speaking  118
Reading  121
Listening  144

AS TO WHAT IS IMPORTANT IN READING

Comprehending every detail in the passage  135
Just being aware of what is in the passage  128
Having a variety of techniques such as scanning, skimming, guessing or predicting  127
Being able to translate the whole passage word for word  150

CHARACTERISTICS OF A GOOD TEXT

Pictures, charts, or graphs  33
Good explanation of the exercises given by the reading material  50
Comprehension questions  33
Other activities such as fill in the blank exercises  37
Short but meaningful passages in respect to grammar and vocabulary  36

75
Long but easy passages in respect to grammar and vocabulary 23

FACTORS THAT ENHANCE THE READER’S COMPREHENSION

Interest in the text’s content 36
Some background knowledge about the subject of a reading text before reading 41
Knowledge about the organisation of the text 20
Knowing all the unknown words in the context before reading 28
Knowing the key vocabulary of the text before reading 37

TYPES OF TEXTS STUDENTS ARE INTERESTED IN

Popular science journals 108
Articles about the social facts 165
Stories novels, poems 162
Newspapers or magazines 105

GENERAL STATEMENTS ABOUT READING

<table>
<thead>
<tr>
<th>Statement</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reading is a difficult task</td>
<td>14</td>
<td>40</td>
</tr>
<tr>
<td>2. If I know something about the content of the material, it helps me understand it.</td>
<td>52</td>
<td>2</td>
</tr>
<tr>
<td>3. If I can see how the text is organised, I find it easier to understand.</td>
<td>43</td>
<td>11</td>
</tr>
<tr>
<td>4. Long reading materials are difficult to read</td>
<td>26</td>
<td>28</td>
</tr>
</tbody>
</table>
5. If I am interested in the reading material, I comprehend more easily. 49 5
6. Having both a supplementary book and a main text is more useful than having a main text book alone. 47 7
7. If the reading material is full of diagrams and pictures, I comprehend the text more easily. 42 12
8. If the reading material is informative, it is easier for me to comprehend. 37 17
9. I comprehend the text much better if I read short, but meaningful reading materials. 42 12
10. If I do some pre-reading activities, I feel ready for the main text. (e.g. Talking about the topic, etc.) 50 4
11. If I learn the key vocabulary before I read the passage, I comprehend more easily. 46 8
12. If I feel free for selecting the reading material I am interested in, comprehension occurs more easily. 46 8

<table>
<thead>
<tr>
<th>STATEMENTS ABOUT THE READING MATERIALS AT PREP SCHOOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading and Thinking/Scientific Series Eng. Book</td>
</tr>
<tr>
<td>Yes No Yes No</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>&quot;The reading materials in the prep school...&quot;</td>
</tr>
<tr>
<td>1. . . . are interesting.&quot; 40 14 28 26</td>
</tr>
<tr>
<td>2. . . . are boring.&quot; 21 33 29 25</td>
</tr>
<tr>
<td>3. . . . are useful in teaching reading techniques.&quot; 50 4 50 4</td>
</tr>
<tr>
<td>4. . . . take a long time to read.&quot; 15 39 39 15</td>
</tr>
<tr>
<td>5. . . . are motivating.&quot; 36 18 29 25</td>
</tr>
<tr>
<td>6. . . . are appropriate to the students' needs.&quot; 40 14 35 19</td>
</tr>
<tr>
<td>7. . . . are full of activities.&quot; 39 15 31 23</td>
</tr>
</tbody>
</table>

77
8. ... are helpful in reaching academic goals.

9. ... have clear diagrams and pictures.

10. ... have clear instructions.

11. ... are informative.
DEPARTMENTS OF SCIENCE

RELATIVE IMPORTANCE OF THE SKILLS TO STUDENTS

<table>
<thead>
<tr>
<th>Skill</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of the students: 36</td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td>85</td>
</tr>
<tr>
<td>Speaking</td>
<td>102</td>
</tr>
<tr>
<td>Reading</td>
<td>63</td>
</tr>
<tr>
<td>Listening</td>
<td>110</td>
</tr>
</tbody>
</table>

AS TO WHAT IS IMPORTANT IN READING

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehending every detail in the passage</td>
<td>72</td>
</tr>
<tr>
<td>Just being aware of what is in the passage</td>
<td>100</td>
</tr>
<tr>
<td>Having a variety of techniques such as scanning, skimming, guessing or predicting</td>
<td>90</td>
</tr>
<tr>
<td>Being able to translating the whole passage word for word</td>
<td>98</td>
</tr>
</tbody>
</table>

CHARACTERISTICS OF A GOOD TEXT

<table>
<thead>
<tr>
<th>Feature</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pictures, charts, or graphs</td>
<td>22</td>
</tr>
<tr>
<td>Good explanation of the exercises given by the reading material</td>
<td>34</td>
</tr>
<tr>
<td>Comprehension questions</td>
<td>24</td>
</tr>
<tr>
<td>Other activities such as fill in the blank exercises</td>
<td>15</td>
</tr>
<tr>
<td>Short but meaningful passages in respect to grammar and vocabulary</td>
<td>29</td>
</tr>
<tr>
<td>Long but easy passages in respect to grammar and vocabulary</td>
<td>19</td>
</tr>
</tbody>
</table>
FACTORS THAT ENHANCE THE READER’S COMPREHENSION

Interest in the text’s content 18
Some background knowledge about the subject of a reading text before reading 30
Knowledge about the organisation of the text 22
Knowing all the unknown words in the context before reading 13
Knowing the key vocabulary of the text before reading 27

TYPES OF TEXTS STUDENTS ARE INTERESTED IN

Popular science journals 46
Articles about the social facts 111
Stories novels, poems 116
Newspapers or magazines 87

GENERAL STATEMENTS ABOUT READING

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reading is a difficult task</td>
<td>8 28</td>
</tr>
<tr>
<td>2. If I know something about the content of the material, it helps me understand it.</td>
<td>35 1</td>
</tr>
<tr>
<td>3. If I can see how the text is organised, I find it easier to understand.</td>
<td>34 2</td>
</tr>
<tr>
<td>4. Long reading materials are difficult to read</td>
<td>20 16</td>
</tr>
<tr>
<td>5. If I am interested in the reading material, I comprehend more easily.</td>
<td>33 3</td>
</tr>
<tr>
<td>6. Having both a supplementary book and a main text is more useful than having a main text book alone.</td>
<td>30 6</td>
</tr>
</tbody>
</table>
7. If the reading material is full of diagrams and pictures, I comprehend the text more easily. | 30 | 6

8. If the reading material is informative, it is easier for me to comprehend. | 25 | 11

9. I comprehend the text much better if I read short, but meaningful reading materials. | 30 | 6

10. If I do some pre-reading activities, I feel ready for the main text. (e.g. Talking about the topic, etc.) | 34 | 2

11. If I learn the key vocabulary before I read the passage, I comprehend more easily. | 35 | 1

12. If I feel free for selecting the reading material I am interested in, comprehension occurs more easily. | 32 | 4

---

**STATEMENTS ABOUT THE READING MATERIALS AT PREP SCHOOL**

| Reading and Thinking/Scientific Eng. Book |
|------------------------------------------|-----------------|-----------------|
| Series                                   | Yes | No | Yes | No |

"The reading materials in the prep school. . . . . . .

1. . . . are interesting." | 29 | 7 | 27 | 9

2. . . . are boring." | 11 | 25 | 17 | 19

3. . . . are useful in teaching reading techniques." | 32 | 4 | 27 | 9

4. . . . take a long time to read." | 12 | 24 | 26 | 10

5. . . . are motivating." | 24 | 12 | 24 | 12

6. . . . are appropriate to the students' needs." | 28 | 8 | 26 | 10

7. . . . are full of activities." | 29 | 7 | 22 | 14

8. . . . are helpful in reaching academic goals." | 27 | 9 | 30 | 6

9. . . . have clear diagrams and pictures." | 29 | 7 | 27 | 9

---

81
10. . . . have clear instructions."
11. . . . are informative."
APPENDIX C

READING ACTIVITY-1
A READING ACTIVITY: AN ACTIVITY THAT CONSISTS OF THREE PARTS: PREREADING ACTIVITY, MID-READING ACTIVITY, AND POST-READING ACTIVITY.

THE THEORY OF MARKET DEMAND

I. PREREADING ACTIVITY

A. ANTICIPATION

- Do you sometimes read books about economy?
- Have you ever read a book about market demand?
- What does market mean to you?
- Do you think that the subject is about supermarket?
- Suppose that you are the boss of a car factory. What criteria would you take into consideration prior to starting the production of the cars?

B. BRAINSTORMING

The topic of the passage you will read is "The theory of market demand". List some words you may expect to find.

1. _____ 2. _____ 3. _____ 4. _____ 5. _____

C. ESSENTIAL WORDS

Read the following paragraphs below and guess the meaning of the words you do not know and then check whether you have listed any of them during the "brainstorming" activity.

1. Robert always claims that he is right even if he knows that he is wrong. "Claims" means that ____________________________________

2. Some people sell products. Other people sell their services, things that they can do for other people. "Product" means that ____________________________________

3. It is not easy to persuade people if they do not believe what you say. "Persuade" means ____________________________________
4. Advertisement is very important for big companies. If the manufacturers of the companies can not advertise their products well, they can not sell them easily. "Advertisement" means ___________________________ "Manufacturer" means ___________________________

5. If you buy a car paying $10000 and sell it $15000, your profit is $5000. "Profit" means ___________________________

6. Turkey supports the Turkish Republic of Northern Cyprus in the United Nations. "Support" means ___________________________

7. The amount of water in the lake is decreasing very quickly. Each day the supply is less and less. "Decrease" means ___________________________

8. The company keeps the name of their new brand secret. They believe that the name of it will affect their buyers very much. "Brand" means ___________________________

9. I am 75 years old and I have never even argued with my wife since the day we got married. "Argue" means ___________________________

10. Coca-cola reduced the cola prices because of consumer pressure. "Consumer" means ___________________________

11. The last crisis affected the market and the prices went up. "Affect" ___________________________

12. Engineers demanded more money to build the dam, otherwise they can not finish it. "Demand" means ___________________________

D. VOCABULARY PREDICTION

Guess which word/s in the parantheses may be appropriate for the sentences.

a. In theory, the market demand tells business which (1)_____ they should produce in order to make the largest (2)_____.
   (1) (advertisement/products)
   (2) (product/profit)
b. The critics say that consumers want to buy only what producers ___ them that they want.
   (advertisement/persuade)

c. The ____ (1) tell the people that Brand X is better than Brand Z, but they do not ____ (2) their statements with facts.
   (1) (Brand/advertisement)
   (2) (persuade/support)

d. On the other hand, supporters of advertising ____ that advertising does not give the consumers information about the price and quality of products.
   (decrease/argue)

e. Social critics question whether, in reality, market demand ______ the producers in this way.
   (affect/claim)

f. Critics say that ______ want to buy only what producers persuade them that they want.
   (supporter/consumer)

g. When automobile ____ (1) study the market____ (2), other things being equal. they will make the greatest profits by producing compact cars.
   (1) (consumer/manufacturer)
   (2) (claim/demand)

E. GUESS AS TO WHAT THE NEXT STEP MIGHT BE

a. In theory, the market demand tells businesses which products they should produce in order to make the largest profits.

b. For instance, suppose most people in the country buy compact automobiles, and few people buy large station wagons.


F. READING PASSAGE

Read for ideas. Do not try to look at or remember every word. Focus on key words and try to understand the author's ideas.

THE THEORY OF MARKET DEMAND

Market researchers add individual demands together. The result, called the market demand, is how much of a product of all the consumers will buy at each price. In theory, the market demand tells businesses which products they should produce in order to make the largest profits. For instance, suppose most people in the country buy compact automobiles, and few people buy large station wagons. When automobile manufacturers study the market demand, they find out that, other things being equal, they will make the greatest profits by producing .............................................. 

Q. Would you please write what you expect to see from this point in the following lines?

........

........

........

........

........

compact cars and decrease the production of large station wagons.

Social critics question whether, in reality, market demand affects producers in this way. They ask if the consumers' demands affect the producers or if the producers cause the consumers' demands. The critics say that consumers want to buy only what producers persuade them that they want. They claim that advertising is often unfair. Advertisements tell the public that Brand X will impress others or that Brand X is better than Brand Z, but they do not support these statements with facts. On the other hand, supporters of advertising argue that advertising does give the consumer information about the price and quality of products. With this information, consumers can make reasonable decisions about which products to buy. (Paul A. Samuelson, Economics (1973). in Amy L. Sonka in Skilfull Reading)
Now discuss what you wrote with your friend. They may be same or different.

G. What is the main idea of the passage in your opinion?

H. Read the sentences below. Circle the signal words of cause and effect. Use your notes to decide if the sentence is true (T), or false (F). Rewrite the false sentence to make them true.

a. ( ) Businessmen want to make large profits, so, in theory, they manufacture the products people are willing to buy.

b. ( ) According to the critics of advertising, consumers can shop more intelligently as a result of advertising.

c. ( ) According to the supporters of the advertising, advertising gives consumer information about the price and quality of products. Consequently, consumers can decide more reasonably which products they want to buy.

I. Use the following signal words of cause and effect to
join the sample sentences.

<table>
<thead>
<tr>
<th>To introduce causes</th>
<th>_</th>
<th>To introduce effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>because</td>
<td>as a result of</td>
<td>as a result causes</td>
</tr>
<tr>
<td>if</td>
<td>is caused by</td>
<td>consequently leads to</td>
</tr>
<tr>
<td>since</td>
<td>because of</td>
<td>for this reason</td>
</tr>
<tr>
<td>due to</td>
<td>owing to</td>
<td>so</td>
</tr>
<tr>
<td></td>
<td></td>
<td>therefore</td>
</tr>
<tr>
<td></td>
<td></td>
<td>thus</td>
</tr>
</tbody>
</table>

a. Write the correct sentences in the given spaces to complete the meaning.

People buy compact cars ----------> _
Critics : ----------------------> ___
Supporters: ------------------------>

b. Read the paragraphs and write a sentence showing cause/effect relation.

1. In theory, unemployment changes with the general economic conditions in the country. If businesses invest in new equipment, for example, they increase production. As a result, there are more jobs for workers. Workers begin both to earn and spend more money. As workers demand more products, prices start to rise and the economy grows.

b. Read the paragraphs and write a sentence showing cause/effect relation.

2. One industry can have positive effects on other industries. For instance, suppose the government decides to build a new highway near Springfield. The demand for construction materials such as cement will increase. The demand for civil engineers, landscape architects, and construction workers will also increase. In addition, there will be new jobs for workers in Springfield because gas
stations, restaurants, and stores will open along the highway.

3. Farm production in the United States increases each year as a result of new technology (e.g., new farm machinery, irrigation, and fertilizers). A century ago, one farmer produced enough food for five people. Today one farmer produces enough for nearly fifty people. Therefore, farmers must lower their prices in order to sell more of their products. Farm incomes are generally low. Farmers' income from their products is only about one-third of nonfarm workers.

(Paul A. Samuelson, Economics (1973). in Amy L. Sonka in Skilful Reading)

A READING ACTIVITY THAT ENABLES THE STUDENTS TO DEVELOP THE SKIMMING SKILL THROUGH DISCUSSION IN A GROUP OF THREE STUDENTS.

First read the paragraphs and then write as to what the paragraphs are about in the following lines.

P.1. The spectrum from sunlight can be divided into three major parts: red, green, and blue. Red, green, and blue are the primary colors in light. When these three colors are mixed, white light is formed. A simple experiment with three flashlights shows that primary colors in light form white light. Put a red filter on the first flashlight, a green filter on the second, and a blue filter on the third. In a dark room, turn on the flashlight with the red filter and shine it against a piece of white paper. It forms a red spot on the paper. In the same way, the flashlight with the green filter forms a green spot. Next point all three flashlights to the same spot. Their colors mix, and white light is formed. (Amy L. Sonka in Skilful Reading)

P.2. Shoppers seem to have special difficulties when they buy fresh fruits and vegetables. There are several things to consider when buying fresh foods. Because fresh foods spoil if they are not used, you have to buy the correct amount for the number of people you are serving. Remember that a pound of some vegetables serves more people than a pound of other vegetables. For instance, a pound of peas in their pod is only two to three servings, but a pound of string beans is enough for six servings. In addition, plan to use fresh foods that are in season because fresh foods are generally less expensive when they are in season. Finally, choose fruits and vegetables that have a bright, fresh color. A good color is often a sign that the food has a lot of vitamins. Careful shoppers try to get as many nutrients as they can for each dollar. (Amy L. Sonka in Skilful Reading)

P.3. Communication by television has been one-way since its beginning. However, the television watcher will soon be able to talk back. Two-way television is now a possibility, making electronic communication a goal for the future. Because of computers and cable television, the members of the audience will soon be more than watchers. They will be able to do more than choose their programs. They will also be able to give feedback on them. Two-way TV is not a dream. The hardware for such a two-way system already exists. For example, the cable television system that are spreading rapidly connect stations and television sets. The same equipment can be used to return information. (Jean Zukowski/Faust, Susan S. Johnson, Clark A. Elizabeth T.
First read the paragraphs and then write as to what the paragraphs are about.

PAPER-11

P.1. Psychology has a new application in the field of medicine. Many doctors, together with their patients, are looking for alternative methods of treatment of physical problems. In large hospitals and research centers, modern methods of therapy seem to focus on the physical disease without considering the patient's mental state. Patient may feel that they are being treated impersonally, like broken machines. Some doctors have recognized this as a problem. They are now using psychological therapy with patients in the treatment of their disorders. The physicians are helping patients to use their own minds to fight their disease. Because the patient is working with the medicine and the doctors against the disease, his or her attitude changes. The patient does not wait for the medicine and treatment to cure him or her, but instead the patient joins the fight.
(Jean Zukowski/Faust, Susan S. Johnson, Clark A. Elizabeth T. in "in Context".)

P.2. A nationwide Qube system would have many uses. Government leaders could use it to get feedback from the people. It could even be used for voting. Furthermore, teachers in television classrooms could communicate with their unseen students. A television communication system would have a great influence on a country. For example, after a talk about a new product, an announcer could ask the audience for opinions. Would they buy the product? During a talk by a government leader, the announcer could ask the audience to talk back. The leader would know whether the audience believed him or not.
Out of all these dreams of progress, there comes one question. Is this what people need and want? With a Qube system, a person might not need to leave the TV set. What would happen to society?
(Jean Zukowski/Faust, Susan S. Johnson, Clark A. Elizabeth T. in "in Context".)

P.1. The spice trade made the world both larger and smaller. It made the world larger because it increased people's knowledge of their world. They learned about countries that were different from their own. The spice trade made the world smaller because it encouraged people to communicate. When people communicate, the distances between them seem to become shorter. Black pepper, cinnamon, cardamom, and other spices have played an important role in
the development of the world.
(Jean Zukowski/Faust, Susan S. Johnson, Clark A. Elizabeth T.
in "in Context".)

First read the paragraphs and then write as to what the paragraphs are about.

PAPER-3

P.1. One experimental group of cable-television watchers is called Qube in Colombus, Ohio. Qube has thirty channels. Members pay for what they watch. The choice of programs includes everything from sports to childrens' shows, from TV games to anthropology. Most importantly, however, the viewers can talk back. A book-sized box of buttons makes it possible. For example, after a program, the announcer might ask for the opinion of the audience. The audience can respond by pushing buttons. An electronic signal goes to a bank of computers at the Qube station. Almost instantly, the data are analyzed, and the viewers see the result on their TV sets.
(Jean Zukowski/Faust, Susan S. Johnson, Clark A. Elizabeth T. in "in Context".)

P.2. The most important reason for desertification is the climate pattern of the world. Near the equator, the middle and hottest part of the Earth, there are many rainy areas. The hot, wet air goes up and cools. As it drops in temperature, the water forms clouds. The clouds drop their water as rain near the equator. The air, now without much water, moves away from the equator toward the top and bottom of the earth—the poles. Between 15 and 30 (both north and south), the waterless air cools and drops down to the surface. The air picks up heat again. As it does this, it also absorbs more water from the surface. The result is that the land naturally gets drier—unless there is something to hold the water there.
(Jean Zukowski/Faust, Susan S. Johnson, Clark A. Elizabeth T. in "in Context".)

P.3. Students all over the world have to work for their education. A college education in the United States is expensive. The costs are so high that most families begin to save for their children's education when their children are babies. Even so, many young people cannot afford to pay the expenses of full-time college work. They do not have enough money to pay for schools costs. Tuition for attending the university, books for classes, and dormitory costs are high. There are other expenses such as chemistry and biology laboratory fees and special student activity fees for such things as parking permits and football tickets. The cost of
a college education increases every year. However, campuses
are still crowded with students. Some Americans students
depend on family support to pay for college. Perhaps some
of the students have scholarships or money grants, but many
do not. How do the rest of the students manage?
(Jean Zukowski/Faust, Susan S. Johnson, Clark A. Elizabeth T.
in "in Context").

I. PREREADING ACTIVITY

A. TRUE/FALSE

a. Two-way television will be used only through cable
television systems. ( T / F )

b. The technology is adequate enough for the scientists to
apply the project. ( T / F )

c. The most important thing about the project is to supply
the viewers with thirty channels. ( T / F )

d. A television communication system has great influence on
a country because of Qube?. ( T / F )

B. WARM-UP BEFORE READING THE TEXT

- Have you ever heard about Qube before?
- What do you know about Qube?
- Who would you communicate with if you had a chance to
use Qube?
- How does this type of machine help us in our life
except for the things mentioned in the reading
passage?
- Do you think that the future education can be carried
out through Qube technology?
- Would you like to learn English through Qube at home or
doing activities in the classroom, why?

C. ESSENTIAL WORDS

Read the following words in the paragraphs below and
guess the meaning of the words you do not know.

1. The number of the radio audience are getting
higher and higher because radio programmers are
doing better radio programs.
"Audience" means ____________________________

2. The members of the parliament are on holiday from the
middle of June to the end of the August.
"Member" ________________________________
3. The teacher asked the students if they learned the passive voice. The students gave feedback to the teachers by saying "no", and the teacher understood that they have to make more practice. "Feedback" means __________________________.

4. The hardware of the computer: transistors, chips, etc, are not as expensive as its software: pocket computer program. "Hardware" means __________________________.

5. Wind opened the window suddenly, the window hit the glass full of water, consequently, the water in the glass spread over the floor. "Spread" means __________________________.

6. The students asked many questions to the teacher and he responded them one by one. "Respond" means __________________________.

7. The data she collected about the city helped the city planners very much. "Data" means __________________________.

8. Mary did not vote for the conservatives but liberals because she hates that party. "Vote" means __________________________.

9. The man’s religion has an influence on him in everything he did. It affected the way he took care of his family, the way he worked, and the way he studied. "Influence" means __________________________.

10. The head of the government, the prime minister, answered the questions the speaker asked on television. "Government" means __________________________.

11. You can use computer for scientific research. Furthermore, you can use it for communication as well. "Furthermore" means __________________________.

D. VOCABULARY PREDICTION

Guess which words in the parantheses is appropriate for the following sentences.

1. Because of computers and cable television, the ______ of the audience will soon be more than watchers. (feedback/member)

2. The people will be able to do more than choose their programs. They will also be able to give ______ on them. (feedback/audience)
3. An electronic signal goes to a bank of computers at the Qube station. Almost instantly, ______ are analyzed, and the viewers see the result on their TV sets. (government/data)

4. The audience can ______ by pushing buttons. (spread/vote)

5. Two-way TV is not a dream. The ______ for such a two-way system already exists. (influence/hardware)

6. During a talk with ______ leader, the announcer could ask the audience to talk back. (furthermore/government)

7. Qube could be used for voting. ______, teachers in television classrooms could communicate with their unseen students. (furthermore/hardware)

8. The cable television systems that are ______ rapidly connect stations and television sets. (respond/spread)

E. READING PASSAGE
Read for ideas. Do not try to look at or remember every word. Focus on key words and try to understand the authors ideas.

Communcation by television has been one-way since its beginning. However, the television watcher will soon be able to talk back. Two-way television is now a possibility, making electronic communication a goal for the future. Because of computers and cable television, the members of the audience will soon be more than watchers. They will be able to do more than choose their programs. They will also be able to give feedback on them. Two-way TV is not a dream. The hardware for such a two-way system already exists. For example, the cable television system that are spreading rapidly connect stations and television sets. The same equipment can be used to return information.

One experimental group of cable-television watchers is called Qube in Colombus, Ohio. Qube has thirty channels. Members pay for what they watch. The choice of programs includes everything from sports to children’s shows, from TV games to anthropology. Most importantly, however, the viewers can talk back. A book-sized box of buttons makes it possible. For example, after a program, the announcer might ask for the opinion of the audience. The audience can respond by pushing buttons. An electronic signal goes to a bank of computers at the Qube station. Almost instantly, the data are analyzed, and the viewers see the result on their TV sets.

A nationwide Qube system would have many uses. Government leaders could use it to get feedback from the people. It could even be used for voting. Furthermore,
teachers in television classrooms could communicate with their unseen students. A television communication system would have a great influence on a country. For example, after a talk about a new product, an announcer could ask the audience for opinions. Would they buy the product? During a talk by a government leader, the announcer could ask the audience to talk back. The leader would know whether the audience believed him or not.

Out of all these dreams of progress, there comes one question. Is this what people need and want? With a Qube system, a person might not need to leave the TV set. What would happen to the society?

(Jean Zukowski/Faust, Susan S. Johnson, Clark A. Elizabeth T. in "in Context".)


WHAT ELSE WOULD YOU MENTION ABOUT IF YOU WERE THE WRITER OF THAT PASSAGE? (ABOUT 20-25 WORDS)

F. WORD-FORM CHART

Try to write the correct form of the word given in the box. If you cannot write the correct form, use your dictionary and then use the numbers on the left before you choose the correct form of the words.

<table>
<thead>
<tr>
<th>NOUN - VERB - ADJECTIVE - ADVERB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Communication</td>
</tr>
<tr>
<td>2. Connect</td>
</tr>
<tr>
<td>3. informative</td>
</tr>
<tr>
<td>4. Announce</td>
</tr>
<tr>
<td>5. Produce</td>
</tr>
</tbody>
</table>
G. Word-form exercise

Complete the missing parts making use of the word-form you completed.

1. The ________ among people increased the world trade all over the world. (1)

2. The speaker ________ the departure of the plane then minutes ago. (5)

3. The workers in that factory are very ________. (5)

4. You can get the ________ about the museum from that man sitting near the door. (3)

5. Are the passages you read ________? (3)

6. Tofas car factory ________ 50500 cars last year. (5)

7. If you want that instrument to function, you have to ________ the two buttons. (2)

8. All ________ with France was stopped when the enemy gained the control of the sea. (1)

9. I ________ him about where to go. (3)

10. The ________ of the house pipes to the water supply does not work well. (2)

11. This road ________ Edinburgh to London. (2)

12. I like his working because he works ________. (5)

13. The ________ of the date of their wedding surprised everybody at the party. (4)

H. From the column at the right, select the correct line to complete each of the numbered lines at the left.

( ) a. Communication all over the world has been very important
1. We are able to communicate to each other so easily.

( ) b. Because of new technology,
2. technology to apply

( ) c. People has the alternative to select the
3. by pushing the buttons.

( ) d. Researchers has already have the

97
( ) d. The audience can answer the questions

( ) e. Qube could be used for

4. since 19th century

5. different purposes: votes, conferences, etc.

6. program they want to watch
COLOR

What is color? To answer this question it is necessary to understand first the colors in sunlight and then the colors of objects.

Sunlight is actually lights of many colors.

Scientists can explain how sunlight, also called white light, forms a spectrum when it passes through a prism.

A rainbow in the sky is a spectrum.

The spectrum from sunlight can be divided into three major parts: red, green, and blue.
An object appears to be a color because it reflects some wavelengths of light and absorbs all the other.

(Amy L. Sonka in Skilful Reading)

B. ESSENTIAL WORDS

Read the following sentences below and guess the meaning of the words you do not know.

1. The people who actually have power are the owners of big companies.
   "Actually" means ______________________________________ .

2. If it rains when the sun shines, you can see the spectrum of colors.
   "Spectrum" means ______________________________________ .

3. You cannot find the end of the space even if you travel as fast as light, because it is infinite.
   "Infinite" means ______________________________________ .

4. The wavelength of an FM radio is shorter than that of an MW band.
   "Wavelength" ________________________________________ .

5. You can bend a thin wire but you cannot bend thick wire.
   "Bend" means ________________________________________ .

6. The interior angles of a square is 360.
   "Angle" means ________________________________________ .

7. Stars are visible only at night.
   "Visible" ________________________________________ .

8. The primary meaning of this word is not used in this book.
   "Primary" means ______________________________________ .

9. A dry piece of cloth can collect and hold more water than an already wet piece of material can absorb.
   "Absorb" means ______________________________________ .
C. VOCABULARY PREDICTION

1. Red has the longest _______. (primary/wavelength)

2. Sun is _______ lights of many colors. (actually/infinite)

3. Red, green, and blue are the _______ colors. (angle/primary)

4. A rainbow in the sky is a _______. (spectrum/angle)

5. By _______(1) at different angles, wavelengths of color take different paths through the prism. Then the colors are ________ (2).
   (1) (bending/absorbing)
   (2) (infinite/visible)

5. When sunlight shines on the grass, the grass ______ all the wavelengths except green. (bend/absorb)

D. Now read the passage. Pay attention to the author’s ideas.

COLOR

What is color? To answer this question it is necessary to understand first the colors in sunlight and then the colors of objects. Sunlight is actually lights of many colors. When sunlight passes through a glass prism, a group of colors is formed. This group of colors, from deep red to dark violet, is called spectrum. The spectrum has an infinite number of colors. However, there are six fairly clear bands of color: red, orange, yellow, green, blue, and violet. Different colors have different wavelengths. Red has the longest wavelength. Violet has the shortest wavelength.

Sunlight is actually lights of many colors. When sunlight passes through a glass prism, a group of colors is formed. This group of colors, from deep red to dark violet, is called a spectrum. The spectrum has an infinite number of colors. However, there are six fairly clear bands of color: red, orange, yellow, green, blue, and violet. Different colors have different wavelengths. Red has the longest wavelength. Violet has the shortest wavelength.

Scientists can explain how sunlight, also called white light, forms a spectrum when it passes through a prism. When a ray of light enters a prism at an angle, its speed changes. When its speed changes the ray of light bends. Different wavelengths of color have different speeds, so each bends at different angle. Violet bends the most. Red bends through the prism. Then the colors are visible.

A rainbow in the sky is a spectrum. When light from the sun passes through raindrops, it bends and forms the rainbow. People can see a rainbow only if the sun is behind
them and the rain is in front of them. the sun must also be low in the sky. Therefore, rainbows are usually seen in the morning or evening.

The spectrum from sunlight can be divided into three major parts: red, green, and blue. Red, green, and blue are the primary colors in light. When these three colors are mixed, white light is formed. A simple experiment with three flashlights shows that primary colors in light form white light. Put a red filter on the first flashlight with the red filter and shine it against a piece of white paper. It forms a red spot on the paper. In the same way, the flashlight with the green filter forms a green spot, and the one with the blue filter forms a blue spot. Next point all three flashlights to the same spot. Their colors mix, and white light is formed. When two colors in the spectrum mix, a third color is formed. Red light and green light form yellow; red and blue form magenta; green and blue form a light blue-green color.

An object appears to be a color because it reflects some wavelengths of light and absorbs all the other. For instance, grass looks green because it reflects the green wavelengths in the sunlight. When sunlight shines on the grass, the grass absorbs all the wavelengths except green. The green wavelengths are reflected. Scientists define a white object as an object that reflects all the wavelengths in sunlight. The scientific definition of a black object is an object that absorbs all the wavelengths. Therefore, scientists do not consider black and white as colors because white is the presence of all colors and black is the absence of all colors. However, it is true that light makes the earth colorful, and colors' effect in business and interesting features of the warm and cool colors make the earth colorful as well. (Amy L. Sonka in Skilful Reading)

E. Choose the best answer:

1. Color is ________________ .
   a) the light of the sun  
   b) the reflection of wavelengths  
   c) the primary colors of white light  
   d) the filtered light

2. Colors are visible through ________ .
   a) spectrum  
   b) flashlight  
   c) prism  
   d) sunlight

3. Grass is green because ______________________ .
   a) green is the reflected color from the plant  
   b) of the absence of the other colors  
   c) green is in the sunlight  
   d) green is one of the light that makes the earth colorful.
F. What do the underlined words refer to?

- it (line 21) ________ it (line 40) ________
- its (line 23) ________ it (line 48) ________
- it (line 28) ________ it (line 50) ________

G. Identifying specific information

Match the specific information on the right to these topic sentences on the left.

<table>
<thead>
<tr>
<th>Topic sentences</th>
<th>Specific information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Color is everywhere.</td>
<td>a. When sunlight enters a prism at an angle, different angles.</td>
</tr>
<tr>
<td>2. Sunlight is actually lights of many colors.</td>
<td>b. There are six fairly clear bands of color in the spectrum.</td>
</tr>
<tr>
<td>3. Scientists can explain how sunlight, also called white light, forms a spectrum when it passes through a prism.</td>
<td>c. Red and blue light magenta.</td>
</tr>
<tr>
<td>4. A rainbow in the sky is a spectrum.</td>
<td>d. When light from the sun passes through raindrops, it bends and forms a rainbow.</td>
</tr>
<tr>
<td>5. Red, green and blue are the primary colors in light.</td>
<td>e. When three flashlights with different filters (red, blue, and green) point to the same spot, and mix white light is formed.</td>
</tr>
<tr>
<td>6. When two colors in the spectrum mix, a third color is formed.</td>
<td>f. Grass looks green because it reflects the green wavelengths in the sun.</td>
</tr>
<tr>
<td>7. An object appears to be a color because it reflects some wavelengths of light and absorbs all the others.</td>
<td>(Amy L. Sonka in Skilful Reading)</td>
</tr>
</tbody>
</table>

H. Read the following sentences. Indicate if the underlined word is used as a noun or as a verb.

Example:

- _N_ Color is everywhere.
- _V_ Children like to color pictures.

- _N_ A flashlight with a green filter forms a green spot.
2. Three flashlight form three spots on the wall.
3. If you paint a wall first blue and then white, the wall will be a very light blue.
4. Different wavelengths of color have different speeds.
5. When two colors of paint mix, a third color is formed.
6. A piece of red glass filters out all of the wavelengths except red.
7. Artists generally work carefully; they do not speed through their work.
8. Artists may make many changes in a painting before they decide on the final form.
9. Artists sometimes color shadows a deep purple.
10. The color of a piece of cloth changes when it is placed in different parts of the light.
11. A red object is easy to spot.
12. When you light a match, the flame looks yellow and blue. (Amy L. Sonka in Skilful Reading)


If you are interested in:

a) color association with culture, go to page 105.
b) cool and warm colors, go to page 109.
GROUP-A

I. Anticipation

- Do you think that colors mean the same thing to all people all over the world?
- What does red make you feel or any other color?

J. Brainstorming

Which words do you expect to see in the following passage?

1. _____ 2. _____ 3. _____ 4. _____ 5. _____

K. Now try to find the missing topic sentences of the paragraphs. The second topic sentence is provided as an example.

First topic sentence: ____________________________________________ .

Second topic sentence: Orange is the bright, warm color of leaves in autumn.

Third topic sentence: ____________________________________________ .

Fourth topic sentence: ____________________________________________ .

Fifth topic sentence: ____________________________________________ .
COLOR ASSOCIATION

Red, for example, is the color of fire, heat, blood, and life. People say red is an exciting and active color. They associate red with a strong feeling like anger. Red is used for signs of danger, such as STOP signs and fire engines. The holiday which is associated with red is Valentine's Day. On February 14, Americans send red hearts to people they love.

Orange is the bright, warm color of leaves in autumn. People say orange is lively, energetic color. They associate orange with happiness. The holidays which are associated with orange are Halloween in October and Thanksgiving in November. On October 31 many people put large orange pumpkins in their windows for Halloween.

People say it is a cheerful and lively color. They associate yellow, too, with happiness. Because it is bright, it is used for signs of caution.

People say it is a refreshing and relaxing color. However, they also associate green with feelings of guilt, fear, and envy. Many people wear green on St. Patrick's Day, March 17.

Police and Navy uniforms are blue. When people are sad, they say, "I feel blue." They associate blue with feelings like unhappiness and fear.

People consider violet a dignified color. They associate it with loneliness. On Easter Sunday, people decorate baskets with purple ribbons.

People describe white as a pure, clean color. They associate white with a bright, clean feeling. Doctors, dentists, and nurses frequently wear white uniforms. On the other hand, black is the color of night. People wear black clothes at serious ceremonies such as funerals and graduation. It is now easy to deduce a fact that we can divide the colors into two parts: cool and warm. However, dividing the colors into two parts can not be called naming.

(Amy L. Sonka in Skilful Reading)
L. Skim the reading passage and get the answers of the missing parts making use of the prompts in the diagram.

COLORS - ASSOCIATED - DESCRIPTIONS - FEELING - HOLIDAY USES

1. ORANGE | | | |  
2. | SUNLIGHT | | | ---  
3. | | CHEERFUL | |  
4. | | | GUILTY |  
5. BLUE | | --- | | ---  
6. | | | LONELINESS|  
7. | | | PURE/CLEAN | ---  
8. | NIGHT | --- | --- |  

(Amy L. Sonka in Skilful Reading)

M. The topic sentence indicates the main idea of a paragraph and it is the most general statement in the paragraph. You try to find the topic sentences the among the following sentences and put them in order.

___ a. Next, add antifreeze to your windshield washer; otherwise, the fluid will freeze and possibly break the container.

___ b. First, put on snow tires if you plan to drive on snowy, icy roads very often.

___ c. Driving in winter, especially on snowy, icy roads, can be less troublesome if you take a few simple precautions.

___ d. Finally, it is also a good idea to carry tire chains, a can of spray to unfreeze door locks and a windshield scraper in your car when driving in winter weather.

___ e. Second, check the amount of antifreeze in your radiator and add more if necessary.

(Alice Oshima and Ann Hogue in Writing Academic English)
a. Furthermore, researchers are continuing to work on the development of an efficient, electrically powered automobile.

b. Researchers in the automobile industry are experimenting with different types of engines and fuels as alternatives to the conventional gasoline engines.

c. One new type of engine, which burns diesel oil instead of gasoline, has been available for several years.

d. Finally, several automobile manufacturers are experimenting with methanol, which is a mixture of gasoline and methyl alcohol, as an automobile fuel.

e. A second type is the gas turbine engine, which can use fuel made from gasoline, diesel oil, kerosene, other petroleum distillates, or methanol.

(Alice Oshima and Ann Hogue in Writing Academic English)

N. What is the main idea of the passage?
I. Anticipation

The topic of the passage you will read is "Warm and cool colors". What do "cool and warm colors" mean to you?
Do you think that red is a warm or cool color?
What color do you paint your sitting room and why?

J. What words do you expect to see in the passage?

1. _____ 2. _____ 3. _____ 4. _____ 5. _____

K. Now try to find the missing topic sentences of the paragraphs. The second one was given as an example.

First topic sentences: 

Second topic sentences: The warm colors are red, orange and yellow.

Third topic sentences: 

Fourth topic sentences: 

WARM AND COOL COLORS

Researchers think that there are also two groups of people: people who prefer warm colors and people who prefer cool colors.
The warm colors are red, orange, and yellow. Where there are warm colors and a lot of light, people usually want to be active. People think that red, for example, is exciting. Sociable people, those who like to be with
others, like red. The cool colors are green, blue, and violet. These colors, unlike warm colors, are relaxing. Where there are cold colors, people are usually quiet. People who like to spend time alone prefer blue. He suggests that a warm color, such as red or orange, is a good color to pass quickly. Cool colors are better for offices or factories if the people who are working there want time to pass quickly. However, almost everyone agrees that red, orange, and yellow are warm and that green, blue, and violet are cool. Perhaps warm colors remind people of warm days and the cool colors remind them of cool days. Because in the north the sun is low during winter, the sunlight appears quite blue. Because the sun is higher during summer, the hot summer sunlight appears yellow.

(Amy L. Sonka in Skilful Reading)

L. Skim the reading passage and get the answers of the missing parts making use of the prompts in the diagram.

<table>
<thead>
<tr>
<th>WARM COLOR</th>
<th>COOL COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED</td>
<td>GREEN</td>
</tr>
<tr>
<td></td>
<td>BLUE</td>
</tr>
<tr>
<td></td>
<td>VIOLET</td>
</tr>
</tbody>
</table>

REMIND PEOPLE OF | COOL DAYS |
TIME PASSES |
MAKE PEOPLE FEEL | RELAXING |

SUITABLE COLORS FOR DIFFERENT PLACES | RESTAURANT |

M. The topic sentence indicates the main idea of a paragraph and it is the most general statement in the paragraph. You try to find the topic sentences among the following sentences and put them in order.

a. Later on, people began to write on pieces of leather, which were rolled into scrolls.

b. In the earliest times, people carved or painted messages on rocks.
c. In the Middle ages, heavy paper called parchment was used for writing; books were laboriously copied by hand.

d. With the invention of the printing press in the middle of the fifteenth century, the modern printing industry was born.

e. Some form of written communication has been used throughout the centuries.

(Alice Oshima and Ann Hogue in Writing Academic English)

a. If there had been a big storm on the day of a baby's birth, the baby might have been named Thunder Cloud.

b. American Indians names are very descriptive, for Indians were usually named for a physical attribute, for an occurrence in nature, or for an animal.

c. Grey Eagle, Red Dog, Big Bear, and Spotted Wolf are examples of Indians named after animals.

d. Indians with distinctive physical characteristics might be given such names as Big Foot or Crooked Leg. (Alice Oshima and Ann Hogue in Writing Academic English)

N. What is the main idea of the passage?


RESUME

I was born in Mersin in 1963. I graduated from the Department of English, Faculty of Education of Gazi University in 1985. Having received the B.A. degree from Gazi University, I started to work as an instructor at the Graduate School of Natural and Applied Sciences English Preparatory school at Ankara University in 1986. Since then I have been teaching English in the English Preparatory School. I also taught English at TOMER Language Center for a year in 1989.