GUESSING WORDS-IN-CONTEXT STRATEGIES USED BY BEGINNING AND UPPER-INTERMEDIATE LEVEL EFL STUDENTS

A THESIS PRESENTED BY MUCÜH KANATLAR TO THE INSTITUTE OF ECONOMICS AND SOCIAL SCIENCES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN TEACHING OF ENGLISH AS A FOREIGN LANGUAGE

BILKENT UNIVERSITY SEPTEMBER, 1995
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To my beloved husband, AHMET
ABSTRACT

Title: Guessing Words-in-Context Strategies Used by Beginning and Upper-Intermediate Level EFL Students
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This descriptive study aimed at investigating the guessing words-in-context strategies of six beginning and six upper-intermediate level EFL students at the Faculty of Engineering and Architecture, Osmangazi University.

The data were collected through individual think-aloud protocols (TAPs) and retrospective sessions (RSs). In the TAPs, the participants were told to think aloud while they were guessing the five test words. In the RSs, the participants later reported what helped them in their guessing.

One of the major results revealed from the analyses of TAP and RS transcriptions showed that the beginning level participants used guessing words-in-context strategies more frequently than the upper-intermediate level participants although both groups frequently used the same strategies which were contextual clues and translation.

Another finding illustrated that the use of guessing words-in-context strategies varied according to the clues that the test words offered rather than the proficiency level of the students.
The results of the study suggest that morphological clues, phonological structure of an unknown word, as well as the contextual richness of the passage with the unknown word, determine the types and frequencies of guessing words-in-context strategies.
The examining committee appointed by the Institute of Economics and Social Sciences for the thesis examination of the MA TEFL student Muge Kanatlar has read the thesis of the student. The committee has decided that the thesis of the student is satisfactory.

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We certify that we have read this thesis and that in our combined opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts.

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CHAPTER 1 INTRODUCTION

Background of the Problem

At the Engineering Faculty of Osmangazi University, Eskişehir, Turkey, learning English is important for the students because as engineers they are expected to be skilled readers and fluent speakers in English at their future jobs. Moreover, they usually have to translate journal articles or books related to their field of engineering for their academic studies or work in the future.

At the institution, a Service English teaching program is carried out. In this program, the students are placed at different levels of English as a foreign language (EFL) according to a proficiency test which is given at the beginning of the academic year. There are beginning, intermediate and upper-intermediate levels in the first year and second years of instruction. At each level, the students follow a course book which is determined according to their level by the English instructors. The students at all levels have six-hour of English classes a week each semester.

The students at the institution also have to take a translation course in their third and fourth years at the university. The translation course instructions are given by the students' subject profession teachers who are proficient in English.

Learning English is important for the students at the institution because as engineers they are expected to be skilled readers and fluent speakers in English at their future jobs. Moreover, they usually have to translate journal articles or books related to their engineering field for their academic studies or work in the future.

During the implementation of this service English teaching program in the first and second years instruction, both the students and English instructors have met two problems related to unknown vocabulary in reading texts.
First, in informal staffroom talks, it has been stated by the English instructors that there are many times at when the students should **guess** an unfamiliar or unknown word from the context, because time is too limited for them to give the meaning of every single unknown word through instruction or for students to look them up a dictionary. However, the English instructors have observed that both the beginning and upper-intermediate level students tend to use dictionaries when they meet any words that they have not yet learned. Even though these words are related to their field of engineering, when they are told to guess the meaning from the context, they mostly say that they have difficulties in guessing and that they do not know what they should do to guess an unfamiliar word in the context.

The researcher herself has experienced the same problem with the students. Once, one of her beginning level students complained, "You always suggest that we should guess some of the unknown words in the reading passages, but you have never explained how we could do guessing! I really do not know what to do to guess an unknown word." An upper-intermediate level student also admitted, "I know sometimes I should guess an unknown word in a passage, but I do not know how, and at these times, I look at the unknown word to have some kind of inspiration which would lead me to the meaning of this word. However, it rarely appears!"

Second, the English instructors at the institution have stated that although they suggested some guessing strategies to be used in their English classes, they could never be sure of the effectiveness of these suggested strategies because they are not very knowledgeable about guessing words-in-context strategies. The English instructors also determined that although some reading books such as *English in context: Reading comprehension for science and technology*, *In context: Reading skills for intermediate students of English as a second language*,
advocate using guessing words-in-context strategies for the unknown words in the passages, it is not explained how these words can be guessed by the students. In some other textbooks such as Reader's choice, the merely suggested and taught strategies are use of contextual clues and affixes.

The problems, which were stated, experienced and observed, has motivated the researcher to examine the studies done to investigate guessing words-in-context strategies used by different level of EFL students. As the result of the inquiry, it was found that little research to investigate guessing words-in-context strategies has been done so far. Among the studies found, the first study in the field was done to investigate 60 EFL students' guessing words-in-context strategies. The students' levels in reading comprehension were divided into three as good, average and weak (Bensaussan & Laufer, 1984).

Secondly, Haynes (1984) conducted a study to find out 63 participants' guessing strategies in English as a second language (ESL) learning. In the most recent study, guessing words-in-context strategies used by 124 EFL high school students were investigated. Sixty-two of the students were high proficiency students, and the other half were low.

Although there were studies done to investigate guessing words-in-context strategies both in ESL and EFL contexts, no research conducted for Turkish EFL students at the university has been found.

Purpose of the Study

Because nobody has investigated guessing words-in-context strategies used by EFL university students at different proficiency levels in Turkey, the aim in this study was to find out the guessing words-in-context strategies used by the beginning and upper-intermediate level students at the Engineering Faculty of Osmangazi University, Turkey. A further aim was to describe the differences in the strategy
use between the beginning and upper-intermediate level students.

It was hoped that the resulting findings of this study would provide a new set of data in guessing words-in-context strategies field. Moreover, recommendations for future studies could be provided to shed a light for future instruction.

Research Focus

This study focused on first investigating and then describing 6 beginning and 6 upper-intermediate level engineering students' guessing words-in-context strategies. The strategies used by two groups were presented and compared in terms of the frequency of the strategy use.

Definitions of Terms

In language; learning, strategy is defined as "planning, competition, conscious manipulation, and movement toward a goal (Oxford, 1990, p. 7). When this concept became common in education, the meaning was transformed into learning strategies which means "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed and more effective to new situations" (Oxford, 1990, p. 8).

Guessing is described as using different clues in a text to get the meaning of a new word (Oxford, 1990). Oxford (1990) pointed out that good language learners can make efficient guesses when they meet an unknown word to be guessed.

Guessing words-in-context strategies are grouped as subcategories of compensation strategies in Oxford's learning strategies taxonomy (Oxford, 1990). In the present study guessing words-in-context was accepted as a subcategory of compensation strategies following in line with Oxford's categories.
CHAPTER 2 LITERATURE REVIEW

Introduction

In spite of the fact that guessing words-in-context is encouraged in many ESL and EFL textbooks and classes, different kinds of strategies for learners to use in guessing words are not proposed. The reason for this is that investigating learners' guessing words-in-context strategies as one of the learning strategies that students use is a recent research focus (Bensoussan & Laufer, 1984; O’Malley & Chamot, 1990). For this reason, to generalize the guessing words-in-context strategies investigated in few studies would not be valid or reliable before more studies are conducted. This study therefore investigated the guessing words-in-context strategies used by beginning and upper-intermediate level students.

Learning Strategies

Since the 1980s, it has been suggested that good language learners might have some special tricks or strategies to learn a new language. In the light of this assumption, some researchers started to study these special strategies used by good language learners so that other learners who were not aware of these strategies could use these strategies and consequently become good language learners (O’Malley & Chamot, 1990).

When O’Malley and Chamot (1990), the pioneers in the field of language learning strategies, started to investigate learning strategies in 1981, there was not any philosophy to base their research on. In other words, there were few empirical studies in the learning strategies field of research even though people have been using learning strategies for thousands of years (Oxford, 1990). The aim of research in the field of learning strategies was the result of a concern for identifying the good language learners' characteristics.
In order to describe good language learners strategies, O'Malley et al. (1985) conducted a study to find out 70 high school ESL students' learning strategies. The participants in the study were beginning and intermediate level students. The data were collected through the class observations and interviews with the participants and their teachers.

The results of the analyses of both classroom observations and interviews showed that the participants in the study used metacognitive, cognitive and socioaffective learning strategies.

After learning strategies had become a new research focus in second and foreign language learning, several definitions for learning strategies were offered by different researchers. For example, Oxford (1990) defined learning strategies as "steps taken by learners to enhance their own learning" (p. 1). According to O'Malley and Chamot (1990) learning strategies are "the special thoughts or behaviors that individuals use to help them comprehend, learn or retain new information" (p. 1).

The aim to define learning strategies was a kind of step to categorize them. As a result of various observations, interviews and studies to investigate learning strategies, it was found that there are different strategies and that they could be grouped under different headings.

Rubin (1981) developed a taxonomy of learning strategies including two primary groups of strategies with a number of subgroups (cited in O'Malley & Chamot, 1990). The strategies that directly affect learning include clarification/verification, guessing/inductive inferencing, deductive reasoning, practice, memorization and monitoring. The processes that contribute indirectly to learning as the other primary group of learning strategies in Rubin's taxonomy consist of creating opportunities for practice and production tricks (Rubin, 1981, cited in
O'Malley, Chamot and Kupper (1989), on the other hand, divided learning strategies into three general strategies as metacognitive learning strategies, cognitive learning strategies and socioeffective learning strategies. The first group, metacognitive learning strategies include planning, monitoring and evaluation. The second group, cognitive learning strategies consist of strategies such as repetition, inferencing, keyword method and note taking. As for the third group, socioaffective learning strategies include asking questions for clarification and cooperation (cited in Brown, 1994).

In a similar manner to Rubin, Oxford (1990) categorized learning strategies as indirect and direct learning strategies. Whereas indirect strategies include metacognitive, affective, and social strategies, direct strategies include memory strategies, cognitive strategies and compensation strategies.

Compensation Strategies

Compensation strategies enable learners to use the new language for either comprehension or production despite limitations in knowledge. Compensation strategies are intended to make up for an inadequate repertoire of grammar and, especially, of vocabulary.

(Oxford, 1990, p. 47)

Oxford (1990) divided compensation strategies into two kinds: (a) guessing intelligently and (b) overcoming limitations in speaking and writing. On the other hand, O'Malley and Chamot (1990) considered guessing words-in-context strategies as a kind of cognitive strategies and called it inferencing (cited in Brown, 1994). Compensation strategies are not used only by foreign or second language learners; native speakers also use some of the compensation strategies such as
guessing a word when it has not been heard or when it is not known (Oxford, 1990).

**Guessing Words-in-Context Strategies**

Guessing words-in-context strategies are basically used to comprehend the overall meaning in a reading text. It is suggested that EFL or ESL students do not need to understand every single word when they read a text because it is not possible to know every single word in a reading passage (Oxford, 1990). However, both ESL and EFL students sometimes see some unknown words in a text that they in fact need to know in order to figure out the overall meaning of the text or even a specific idea in the text. At these times, either their teachers have to teach the unknown words or the students themselves are expected to get to the meanings of these words by looking up a dictionary or guessing. As Twaddell (cited in Haynes, 1984) states, even though students are taught words' meanings out of context, there are polysemic words whose meanings can change from context to context. At these times, guessing these words from context rather than looking up dictionaries is recommended for students to intensify their comprehension (Haynes, 1984).

Guessing words-in-context is not effective when it is used as a way to learn or teach vocabulary, but it is helpful to increase reading speed as well as to strengthen comprehension (Haynes, 1984; Mondria & Boer, 1991). Guessing words-in-context is related to fast reading, because of the argument that using a dictionary to look up the unknown words in a reading passage will result in the decline of learners' reading pace, and consequently, learners' comprehension of the reading passage will be weakened (Haynes, 1984). Although guessing words-in-context may increase reading speed, it may not necessarily lead to recall. In a study done by Mondria and Boer (1991), it was found that
the unknown words which were learned through guessing could not be remembered by the students. In other words, correlation between guessing and retention was negative. W. Grabe (personal communication, June 1, 1995) also supported the idea that guessing words from context is efficient in order to strengthen comprehension, but not to learn vocabulary. In addition, he stated that guessing words-in-context as well as using dictionaries help students read independently.

Studies Done to Investigate Guessing Words-in-Context Strategies

The finding that guessing words-in-context strategies will enhance learners' reading comprehension and pace has encouraged some researchers to conduct several studies to find out what these strategies actually are. Bensoussan and Laufer (1984) studied 60 first year EFL students' guessing words-in-context strategies. These 60 students' levels were determined according to their EFL university course results at the end of the first semester. Twenty of them were good, twenty of them were average, and the remaining twenty were weak students in EFL reading comprehension. The researchers tried to answer the following questions in their study: (a) How much does the context help lexical guessing?, (b) Are some words guessed more easily than others?, and (c) Can more proficient students (in this research good students in EFL reading comprehension) use context more effectively while guessing unknown words than the less proficient students?

The participants were first given a list of 70 words to translate into their native language; this treatment was called "words in isolation" (Bensoussan & Laufer, 1984, p. 20). A week later, a reading text including all these 70 words were given to the participants. This time the 70 words were in context and the participants were again asked to translate these words into their native language and also to answer the comprehension questions related to this reading text. When the
results of the first (in isolation) and second (in context) translations were compared, it was found that the context helped guessing in only 13 % of the responses for only 24 % of the words. That is to say the context did not help the students very much to guess the unknown words; instead of using the context, the participants used different strategies such as (a) wrong choice of a meaning of a polysemic, (b) mistranslating a morphological trouble maker, (c) mistranslating an idiom, (d) confusion of synophone/synograph, (e) confusion of false cognate (Bensoussan & Laufer, 1984). The categories found above suggest that all of these strategies led the participants to either wild or contextually-inappropriate guesses.

Concerning the answer to the second question of the research, it was discovered that word's "guessability" depended on the students' using preconceived notions "which students tend to have about the meaning of a word or phrase" (Bensoussan & Laufer, 1984, p. 22) rather than using the context. For example, one of the subjects in the research knew the meaning of "out" and "line", and when he saw the word "outline", he translated it as "out of the line". This example demonstrates how the morphological clues as troublemaker were used by the student to guess the unknown word.

The finding of the last question in the research showed that more proficient students could not use context more effectively than the less proficient students. Moreover, there was not a great difference between the strategies used by good, average and weak students; both good and weak students used almost the same strategies to guess the unknown words-in-context. This finding confirms that "student level does not appear to have a significant effect on lexical guessing in context" (Bensoussan & Laufer, 1984, p. 25).

To sum up, the students in the study done by Bensoussan and Laufer
(1984) used mostly two strategies. The first frequently used strategy was to try to ignore the unknown words. The second was to apply preconceived notions about the meaning of words or phrases to guess the unknown words in context. They made little use of other strategies to guess the unknown words-in-context such as using morphological and contextual clues. However, the guessing strategies used by different proficiency level students were not described explicitly at the end of the research; instead commonly used strategies used by three levels of students were mentioned. In addition, the students were not studied individually and the data was not collected through think-aloud protocols which is currently a commonly technique used by many researchers who try to investigate learning strategies of learners because it helps researcher to understand what the student is actually doing or thinking at the moment of the learning process (Seliger & Shohamy, 1989; O'Malley & Chamot, 1990).

A study conducted by Haynes (1984) was a further step in finding out what information students use to guess unknown words-in-context. Sixty-three volunteer ESL students at the English Language Center at Michigan State University from different nationalities such as Spanish, Japanese, Arabic and Tunisian Arabic participated in her research. Their proficiency levels were ascertained according to the English proficiency exam of the Language Center; there were high and lower proficiency students in the study.

The researcher herself initiated the study by interviewing the participants individually about their background of English study. After the interview, each participant was given two short reading texts with two nonsense words in each. The nonsense words were placed in such a way that one of them could be guessed with the help of global clues which required overall understanding of the text and the other nonsense
word could be guessed through local clues which "referred to the immediate sentence context" (Haynes, 1984, p. 168). As soon as the participants finished reading, they were asked to tell what they had understood and which words had made the texts difficult to understand. When the participants showed the problem words, the researcher asked them to guess these problem words orally. After the participants offered their guesses, the researcher confirmed the guess or told the context meaning of this word if they could not guess or if their guess was not correct. Each student was studied through the same procedure, and each individual session did not exceed one and a half hours.

At the end, it was determined that the students found local guessing easier than global guessing. For guessing strategies, the students used word-analysis, cognates, mismatches which means remembering the previous knowledge in English or native language, uncertainty of familiarity which means that the student was familiar with this word, but not able to remember how. One of the findings of the research showed that although low proficiency students had difficulties with guessing, because their linguistic knowledge was limited, the strategies used by high and lower proficiency students were not significantly different. For example, all of the students in the study used word-analysis to guess a problem word.

Haynes (1984) offered some suggestions on the basis of the findings in her research; three of them are as followings: (a) Students should be encouraged to guess unknown words-in-context if there are appropriate clues in the text, (b) Teachers should know that low proficiency learners whose linguistic knowledge is limited might have difficulties with guessing, and (c) In spite of the fact that word-analysis often misleads learners, it is still one of the commonest strategies used to guess unknown words-in-context.
One of the shortcomings of Haynes' research was the use of retrospective sessions for data collection. Many researchers have criticized retrospective data collection procedures because they believe that subjects may think or use some strategies at the moment of task solving, but forget to tell everything they have thought or used in retrospective session; hence the data will be unreliable (Nunan, 1992). A think-aloud technique rather than retrospection is recommended for mental actions like guessing words-in-context. The other weakness of the research was that although the researcher investigated guessing strategies, each subject's guessing words-in-context strategies were not described in a detailed taxonomy.

The most detailed guessing words-in-context strategies taxonomy was suggested by Haastrup (cited in Faerch & Kasper, 1987). The participants in her study were 124 Danish high school students who were learning EFL. Whereas 62 participants were high proficiency students in English, the other half were those of low proficiency. The researcher used both pair think-aloud and individual retrospective sessions to investigate the students' guessing words-in-context strategies. Even though both think-aloud and retrospective sessions were used, think-aloud data was considered as primary source of data because think-aloud is an informant-initiated whereas retrospection is a researcher-controlled procedure (Haastrup, cited in Faerch & Kasper, 1987).

In the think aloud sessions, two students whose proficiency levels were the same were given a reading text with 25 words to be guessed; the test words were not nonsense words like in Haynes' (1984) research. The pairs were asked to think aloud and tell each other whatever they thought during the process of guessing the test words. As soon as they finished their guesses, the researcher conducted the retrospective sessions with only 32 pairs because of time and financial constraints.
These 32 pairs were selected for the retrospective session because their
teachers described them as relatively talkative, outgoing and self-
confident (Haastrupt, cited in Faerch & Kasper, 1987). Contrary to the
think aloud sessions, the retrospective sessions were conducted with
every student in each pair individually. The researcher asked the
following questions in each individual retrospective session: (a) What
came into your mind first when you saw this word?, (b) You made a long
pause at this point. Do you remember what you were thinking of?, and
(c) What led you to suggest this meaning of the word? (Haastrupt, 1987,
p. 204).

At the end of the think-aloud and retrospective sessions, a
detailed taxonomy about the guessing words-in-context strategies was
established. There were three main categories of the strategies used by
62 pairs (see Figure 1). **Contextual cues** are based on the text or on
subjects' knowledge of world. **Interlingual cues** are related to first
language (L1), borrowed words (loanwords) in L1 or knowledge of foreign
languages other than English, whereas **Intralingual cues** refer to
knowledge of English.
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<td>1. Phonology/orthography</td>
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Figure 1. Guessing words-in-context strategies taxonomy (Haastrupt, 1984, p. 199)

This taxonomy was employed as a basis to construct the taxonomy of the guessing words-in-context strategies used in the present study.

Although Haastrupt (cited in Faerch & Kasper, 1987) stated that pair think-aloud was an appropriate technique to study guessing strategies, some inadequacies appeared during the pair think-aloud sessions. For example, sometimes one of the partners in pair dominated the other or some participants did not tell several cues they used because they were afraid that their partner might laugh at them. Because of these kinds of shortcomings, retrospective sessions followed think-aloud for the completeness and validity of data (Haastrupt, cited in Faerch & Kasper, 1987).

To conclude, the shortcomings of the previous studies conducted to describe the guessing words-in-context strategies helped to determine the method and procedure of the present study. For example, this study described the guessing words-in-context strategies of each student at
beginning and upper-intermediate levels in detail unlike in Haynes' (1984) study. In addition, in the present study, individual think-aloud protocols rather than pair-think aloud sessions were used in order to overcome the socio-psychological effects such as sex differences, motivation and group dynamics which might appear in a pair think-aloud session as Haastrup observed in her study (Haastrup, cited in Faerch & Kasper, 1987).
CHAPTER 3 METHODOLOGY

Introduction

This research was a study to describe the guessing words-in-context strategies used by the beginning and upper-intermediate level EFL students at Osmangazi University, The Faculty of Engineering and Architecture, Eskisehir, Turkey.

Participants

There were six beginning (6 males) and six upper-intermediate (4 females and 2 males) level students who were currently studying service English at Osmangazi University, the Faculty of Engineering and Architecture. All participants were second-year EFL students attending different departments such as mechanical engineering, industrial engineering and chemical engineering at the university. Their proficiency level was determined at the beginning of their first year at the university by a placement test which included grammar, vocabulary, reading, writing sections and which was prepared by the English Instructors at the institution. In their second year instruction of English, the intermediate level participants were exempted to upper-intermediate level classes, the beginning level participants stayed in their present level classes.

The participants in this study were expected to verbalize their thoughts during their guessing words-in-context process. One very important factor in verbalizing thoughts is that individual differences might have a critical effect on the completeness of the verbal data. It has been observed that some people who are self-confident, talkative, outgoing and extroverted are better at verbalizing their thoughts than others (Ericsson & Simon, 1984). Therefore, the participants in this study were selected on the basis of personality traits criteria by asking some teachers at the institution to describe relatively self-
confident, outgoing, talkative and extroverted students who would be able to think aloud in their classes. These teachers suggested twelve beginning and eight upper-intermediate level students initially, but in the warm-up sessions it was observed that only 6 beginning and 6 upper-intermediate level students were competent in doing think-aloud. Three of the suggested students stated that they could not verbalize the processes in their minds although they were willing to participate in the study. Seliger and Shohamy (1989) point out that if participants state that they cannot express the process in their minds verbally, they should not be forced to participate in a study in which think-aloud protocols (TAPs) are used. In the light of this statement, the students who stated that they could not verbalize their thoughts were dropped from the study. Five of the suggested beginning level students were dropped after they completed the questionnaire because their level was close to upper-intermediate, not beginning.

Although twelve of the suggested students participated in the present study, all of the twenty suggested students completed a consent form (see Appendix A).

Each participant was given a short questionnaire on their educational background and level (see Appendix B). The questionnaire consisted of two parts: Part A and Part B. The questions in Part A were related to the participants' educational background whereas the questions in Part B were designed to determine the participants' levels and problems in different skills.

All questions except for one in the questionnaire were structured questions. These structured questions were supported with an open ended question, question 4 in part B for the validity and completeness of the data (Oppenheim, 1992). The open ended question in the questionnaire also provided information about the participants' problems.
in different skills such as listening, reading, speaking and reading.

The answers given to the questionnaire, Part A by the beginning level participants are shown in Table 1. The six pair capitals in the table refer to beginning level participants' initials.

Table 1
Demographic Information About the Beginning Level Participants

<table>
<thead>
<tr>
<th>QUESTIONS IN PART A</th>
<th>BEGINNING LEVEL PARTICIPANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O. C.</td>
</tr>
<tr>
<td>Age</td>
<td>20</td>
</tr>
<tr>
<td>Sex</td>
<td>M</td>
</tr>
<tr>
<td>City s/he was born</td>
<td>Denizli</td>
</tr>
<tr>
<td>High school type</td>
<td>state school</td>
</tr>
<tr>
<td>Attending a preparatory class</td>
<td>no</td>
</tr>
<tr>
<td>Year of English learning</td>
<td>7</td>
</tr>
</tbody>
</table>

Note. M = male.

As can be seen in Table 1, there was a consistency between the beginning level participants in terms of their sex, high school type and attendance a preparatory class. All of the beginning level participants were male. They all graduated from state high schools, and none of them attended a preparatory class at secondary or high school.

The answers given to the questions in Part B are illustrated in Table 2. In the table, letter (b) refers to beginning level. The other letters (s), (r), (w) and (l) refer to speaking, reading, writing and listening skills respectively.
Table 2
Self-Assessment of the Beginning Level Participants of Their Proficiency Level

<table>
<thead>
<tr>
<th>QUESTIONS IN PART B</th>
<th>BEGINNING LEVEL PARTICIPANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O. C.</td>
</tr>
<tr>
<td>Vocabulary knowledge in English</td>
<td>b</td>
</tr>
<tr>
<td>Grammar knowledge in English</td>
<td>b</td>
</tr>
<tr>
<td>Skill(s) s/he is most good at</td>
<td>s</td>
</tr>
</tbody>
</table>

Note. b = beginning level; s = speaking; r = reading; w = writing; l = listening.

The vocabulary and grammar knowledge of all the beginning level participants were beginning level as it was required for the study (see Table 2). Five of the participants stated that they were most good at reading. Only one of the beginning level participants was most good at speaking (see Table 2).

Because the participants gave long answer to question 4 in part B, their answers to this question were displayed in a separate table, Table 3 for the beginning level participants. In Table 3, the six pair capitals in the table refer to the beginning level participants' initials. Voc, pron, dif acc, gram, pre, flue and spel refer to vocabulary, pronunciation, different accents, prepositions, fluency and spelling problems respectively.
Table 3

Self-Assessment of the Beginning Level Participants of Their Problems in Different Skills

<table>
<thead>
<tr>
<th>QUESTION 4, PART B</th>
<th>O. C.</th>
<th>V. Y.</th>
<th>B. M.</th>
<th>L. K.</th>
<th>I. A.</th>
<th>I. B.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening problems</td>
<td>voc</td>
<td>voc</td>
<td>voc</td>
<td>dif acc</td>
<td>pron</td>
<td>pron</td>
</tr>
<tr>
<td>Reading problems</td>
<td>voc</td>
<td>-</td>
<td>voc</td>
<td>-</td>
<td>-</td>
<td>voc</td>
</tr>
<tr>
<td>Speaking problems</td>
<td>voc</td>
<td>pron</td>
<td>gram</td>
<td>pre</td>
<td>voc</td>
<td>voc</td>
</tr>
<tr>
<td>Writing problems</td>
<td>spel</td>
<td>spel</td>
<td>spel</td>
<td>voc</td>
<td>voc</td>
<td>voc</td>
</tr>
</tbody>
</table>

Note. voc = vocabulary problems; dif acc = different accent problems; pron = pronunciation problems; gram = grammar problems; flue = fluency problems; pre = preposition problems; spel = spelling problems.

Each beginning level participant stated problems related to vocabulary (see Table 3). Vocabulary problems in speaking and writing were related to difficulties in use of appropriate vocabulary while speaking and writing. Vocabulary problems in reading and listening were due to the beginning level participants' limited knowledge of vocabulary.

The answers given to the questionnaire, Part A by the upper-intermediate level participants are illustrated in Table 4. The six pair capitals in the table refer to the upper-intermediate level participants' initials.
Table 4

Demographic Information About the Upper-Intermediate Level Participants

<table>
<thead>
<tr>
<th>QUESTIONS IN PART A</th>
<th>UPPER-INTERMEDIATE LEVEL PARTICIPANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>20  21  19  19  21  19</td>
</tr>
<tr>
<td>Sex</td>
<td>F  M  F  F  M  F</td>
</tr>
<tr>
<td>City s/he was born</td>
<td>Izmir  Eskisehir  Eskisehir  Aydin  Istanbul  Eskisehir</td>
</tr>
<tr>
<td>High school type</td>
<td>private  naval  state  private  private  state</td>
</tr>
<tr>
<td>Attending a preparatory class</td>
<td>yes  yes  no  yes  yes  no</td>
</tr>
<tr>
<td>Year of English learning</td>
<td>9  7  8  9  9  8</td>
</tr>
</tbody>
</table>

Note.  M = male; F = female.

As can be seen in Table 4, two of the upper-intermediate level participants were male. The remaining four were female. The participants who graduated from private and naval high schools attended a preparatory class at secondary or high school.

The upper-intermediate level participants' answers to the questions in Part B are showed in Table 5. The six pair capitals in the table refer to the upper-intermediate level participants' initials. The letter (u) shows that the participant is upper-intermediate level whereas (i) refers to intermediate level. The other letters (r), (s), (w) and (l) refer to reading, speaking, writing and listening skills respectively.
Table 5

Self-Assessment of the Upper-Intermediate Level Participants of Their Proficiency Level

<table>
<thead>
<tr>
<th>QUESTIONS IN PART B</th>
<th>UPPER-INTERMEDIATE LEVEL PARTICIPANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocabulary knowledge in English</td>
<td>i</td>
</tr>
<tr>
<td>Grammar knowledge in English</td>
<td>u</td>
</tr>
<tr>
<td>Skill(s) s/he is most good at</td>
<td>r + s + w</td>
</tr>
</tbody>
</table>

Note: i = intermediate level; u = upper-intermediate level; r = reading; s = speaking; w = writing; l = listening.

All of the upper-intermediate level participants assessed their grammar knowledge in English as upper-intermediate level. Four of them stated that their vocabulary knowledge in English was intermediate level because they did not know many words.

The answers to question 4 in Part B are illustrated in a separate table, Table 6, because question 4 was an open ended question which required long answers. In the table, voc, pron, acc, gram and inf refer to vocabulary, pronunciation, different accents, grammar and infinitive problems respectively.
Table 6

**Self-Assessment of the Upper-Intermediate Level Participants of Their Problems in Different Skills**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening problems</td>
<td>pron</td>
<td>pron</td>
<td>acc</td>
<td>acc</td>
<td>acc</td>
<td>pron</td>
</tr>
<tr>
<td>Reading problems</td>
<td>-</td>
<td>-</td>
<td>voc</td>
<td>-</td>
<td>-</td>
<td>voc</td>
</tr>
<tr>
<td>Speaking problems</td>
<td>-</td>
<td>voc</td>
<td>gram</td>
<td>voc</td>
<td>voc</td>
<td>voc</td>
</tr>
<tr>
<td>Writing problems</td>
<td>-</td>
<td>-</td>
<td>inf</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note. pron = pronunciation problems; acc = accent problems; voc = vocabulary problems; gram = grammar problems; inf = infinitive problems.

The upper-intermediate level participants like the beginning level participants reported they had problems related to vocabulary because they did not know many words to express themselves while speaking and writing. In reading, the unknown words weakened their comprehension. Contrary to the beginning level students (see Table 3), only two of the upper-intermediate level participants had problems in writing related to vocabulary, grammar and infinitives (see Table 6).

**Text Materials**

**Reading Texts**

For the warm-up sessions, two reading texts (see Appendix C) were used. The first reading text was selected from *Study reading: A course in reading skills for academic purposes*, by Glendinning and Holmstrom (1992). It was about the effect of marriage on women. The second text was from *American language course: Graded reader III* which was printed in *Hava Harp Okulu Matbaasi* in 1987. This text was about television and
longer than the first reading text.

In the TAPs, two reading texts (see Appendix D) were used. The first reading text about the Zulu empire was also used in the study conducted to investigate guessing words-in-context strategies (Haastrup, cited in Faerch & Kasper, 1987). The second text was selected from *Study reading: A course in reading skills for academic purposes*.

The four reading texts used in the warm-up session and TAP were selected on the basis of statistical summary results (see Appendix E) which display the readability and information on the structure of paragraphs, sentences and words in the reading texts. This statistical summary information was obtained through a word processing program called the Professional Write (pw). According to the statistical summary, all of the texts used in warm-up session and TAP were at standard reading ease ranging from 48 to 60. They all referred to approximate grade level readers ranging from 11 to 14 (see Appendix E).

**Nonsense Test Words**

All of the test words to be guessed in both warm-up session and TAP were nonsense words that were made up by the researcher, that is to say they do not exist in English. The rationale for using the nonsense words instead of real English words was for purposes of validity. As Hamburg and Span (1982) and Walker (1985) (cited in Haynes, 1984) experienced in their studies done to find out the participants' guessing words-in-context strategies, none of the participants knew the words to be guessed, because the participants never had the previous knowledge of these words. As a result, the participants' guessing words-in-context strategies was "a controlled set of data" (Haynes, 1984, p. 168). Their strategies to guess the underlined nonsense words were valid, because they did not know these words and they applied their strategies on the
words to guess.

The researcher selected some words from the reading texts (dissatisfaction, poorer, benificial, guess, books, entertains, laugh, insatiable, dissension, mental, earn and evidence) and replaced these words made up nonsense test words (bontilation, lemirer, sominive, veruvate, jallinds, ogstels, sowin, vobitable, dismension, rumic, jarn and fatance respectively). The nonsense words with suffixes or prefixes such as vobitable and lemirer were made up so that these words looked like parts of speech.

In the warm-up reading texts, there were three test words, bontilation, lemirer and sominive, and four test words, veruvate, jallinds, ogstels and sowin in the second warm-up reading text. These test words were underlined so that the participants could understand which words they were supposed to guess (see Appendix C).

In the first TAP reading text, the test words were vobitable and dismension which were underlined as were in the warm-up session texts. In the second TAP reading text, the test words were rumic, jarn and fatance (see Appendix D).

Data Collection

There were five phases to obtain the data:

1. A short questionnaire was given to the suggested students to clarify their educational background and level.
2. Warm-up sessions for the think-aloud protocols (TAPs) were conducted with the suggested students (Ericsson & Simon, 1984).
3. The students who were willing to participate in the study and demonstrated the capacity to think aloud were selected (Ericsson & Simon, 1984).
4. Think-aloud protocols to obtain the participants' guessing words-in-context strategies were conducted (Seliger & Shohamy, 1989).
5. Interviews with the participants to obtain their strategies through retrospection were conducted.

**A Background Questionnaire**

The questionnaire in order to collect information on the participants' educational background and level was given before the warm-up session and TAP. When the participant had a question about the questionnaire, the researcher helped him/her. As soon as each participant completed the questionnaire, the participant's teacher was asked to confirm the information that the participant gave in the questionnaire.

Five suggested beginning level students were dropped according to their questionnaire answers in part B, because their level was above beginning level.

**Warm-up Sessions For Each Participant**

The warm-up sessions on think-aloud technique were conducted individually by the researcher (Seliger & Shohamy, 1989). The setting for the research was the researcher's home, for two reasons. Firstly, a classroom for the research could not be arranged. Moreover, it is suggested that think-aloud protocols should be conducted somewhere where the participant will not be disturbed with any noise or by anybody (Faerch & Kasper, 1987).

First, the participants were told what they were expected to do (see Appendix F), then they listened to a segment of a sample think-aloud protocol in Turkish from the tape. After having listened to the sample, the participants practiced the think-aloud technique through two reading texts.

As a result of an informal talk done with two upper-intermediate level students previously dropped the study, the researcher decided not to tell the participants that they would guess nonsense words. In the
informal talk, two students stated that if they had known that the test
words were nonsense words, their way of thinking and consequent
strategies would have been completely different. For example, one of
them said, "I would not take this suffix -able in the test word
yobitable into consideration, because I know this word is a made up
word."

**Think-Aloud Protocols (TAPs)**

Each participant who was able to verbalize his or her thoughts in
the warm-up was immediately given the first reading text which was
chosen for the TAPs. As soon as the participant finished the first
text, the second was given. For each text, the participants were told
to verbalize their thoughts in Turkish while guessing the underlined
nonsense test words. The reason for the use of Turkish in TAPs was
based on the results of a study done by O'Malley and Chamot (1990).
They conducted their study to find out beginning and intermediate level
students' cognitive and metacognitive strategies. The participants in
the study were allowed to use either their native language or English to
tell the strategies they used. At the end of the research it was found
that the beginning level students who had preferred to use their native
language described more strategies than the intermediate level students
who had used English to describe their strategies. Consequently,
O'Malley and Chamot (1990) state that if participants use their native
language instead of English during data collection procedure, it might
have an effect on the results. On the basis of their assumption, the
participants in the present study were told to use Turkish when they
were verbalizing their thoughts to guess the test words. During each
TAP, everything the participant said was recorded on tape.

When the participants paused longer than 15 seconds, they were
going to be reminded to keep talking with the following question "What
are you thinking now?" (Ericsson & Simon, cited in Faerch & Kasper, 1987). With this question, the researcher would have both learned what the participant was thinking at that moment and made the subject speak again. However, none of the participants paused longer than 15 seconds.

Retrospective Sessions (RSs)

When the participants finished their TAP, they started their RS which was conducted by the researcher, in Turkish. The reason for conducting RSs following TAPs was to overcome some shortcomings of the TAP such as "incomplete reporting and protocols that were difficult to interpret" (Haastrupt, cited in Faerch & Kasper, 1987, p. 202). As Haastrupt (cited in Faerch & Kasper, 1987) states, the use of two different source of data makes the results much more valid and reliable provided that the TAP is regarded as the primary source.

In the RSs, first the participants were given the first TAP reading text. Next, they were asked the following question: What helped you when you were trying to guess this word? (Haastrupt, cited in Faerch & Kasper, 1987) by pointing out the first test word in the TAP reading text. For each test word in two TAP texts, the same procedure was followed.

The participants were expected to report the clues they used to guess the test words in their RSs. However, some participants tended to tell or interpret the texts. At these times, the researcher told the participants that she did not evaluate what they had understood from the texts, but she tried to learn what clues the participants had used to guess the test words.

Each individual RS was recorded as were in the TAP. The participants were not given a time limit to complete the whole process—from the warm-up to the RS—and in general a whole session did not exceed two hours. Although the same procedure was followed for the
upper-intermediate level participants, they completed the whole session in about half an hour shorter time than the beginning level participants.

In conclusion, the data in the present study were collected from two sources; TAPs and RSs. RSs were used for the purpose of obtaining more reliable and valid data. TAP was the primary data source whereas RS was the secondary.
CHAPTER 4 DATA ANALYSIS

The present study aimed at investigating six beginning and six upper-intermediate level participants' guessing words-in-context strategies through think-aloud protocols (TAPs) and retrospective sessions (RSs). Data analysis consisted of both qualitative and quantitative analyses of the transcriptions of the TAPs and RSs. First, the procedure of analysis is described, and then the results will be presented.

Procedure

Construction of a Guessing Words-in-Context Taxonomy

A taxonomy for the strategy types was developed on the basis of the previous studies on guessing words-in-context strategies. Haynes (1984) determined in her study that the students used the strategies of contextual clues and uncertainty of familiarity when they were guessing unknown words in two reading texts. Word analysis was stated as one of the guessing word-in-context strategies both in Haynes' (1984) and Haastrupt' (cited in Faerch & Kasper, 1987) studies. In addition, using affixes to guess unfamiliar words are recommended by several reading textbooks as mentioned in Chapter 1, p. 2. Knowledge of the world was another strategy included in the guessing words-in-context strategies taxonomy by Haastrupt (cited in Faerch & Kasper, 1987). Hosenfeld (1977) also accepted use of knowledge of the world as a strategy used to get to the meaning of an unfamiliar word (cited in Wenden & Rubin, 1987). Nation and Clarke (1980) and Haastrupt (1987) found that recognizing the part of the speech of an unfamiliar word is one of the strategies used for guessing.

The list of the strategies was augmented by an overall reading of the transcriptions prior to analysis. As a result, four more categories which are self-questioning, interlingual phonological association,
intralingual phonological association and interlingual collocation were added to the taxonomy as in Figure 2.

<table>
<thead>
<tr>
<th>STRATEGIES</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Contextual clues</td>
<td>A word, a phrase, a group of words in the sentence with the test word.</td>
</tr>
<tr>
<td>2. Word analysis</td>
<td>Recognition or analyzing affixes in the test word.</td>
</tr>
<tr>
<td>3. Knowledge of the world</td>
<td>Use of world background knowledge to guess the test word.</td>
</tr>
<tr>
<td>4. Part of the speech</td>
<td>Recognition of the parts of the speech of the test word.</td>
</tr>
<tr>
<td>5. Intralingual phonological association</td>
<td>Phonological association of the test word with a word in English.</td>
</tr>
<tr>
<td>6. Interlingual phonological association</td>
<td>Phonological association of the test word with a word in Turkish.</td>
</tr>
<tr>
<td>7. Interlingual collocation</td>
<td>Use of collocation word knowledge based on Turkish to guess the test word.</td>
</tr>
<tr>
<td>8. Translation</td>
<td>Translating some words in the sentence with the test word or the sentence itself with the test word into Turkish.</td>
</tr>
<tr>
<td>9. Uncertainty of familiarity</td>
<td>Familiarity with the test word somehow, but difficulty in remembering where or when the word had been seen or learned.</td>
</tr>
<tr>
<td>10. Self-questioning</td>
<td>Questions asked by the subjects themselves to guess the test word.</td>
</tr>
</tbody>
</table>

Figure 2. Strategy types and their explanations
As the last step, each strategy in the taxonomy was coded (see Appendix G for the codification), and a separate taxonomy table for each test word (dismesion, yobitable, rumic, jarn, and fatance) was prepared.

Analyses of TAPs and RSs

The recorded TAPs and RSs were first transcribed by the researcher herself for each participant (see Appendix H for transcription conventions, and Appendix I for sample protocols and sessions). Second, all transcriptions were read before the analysis.

In the analysis of TAPs, the first TAP reading text with two test words were analyzed. The strategies used for each test word were circled and coded during the analysis of TAPs. The same procedure for data analysis was followed for the three test words in the second TAP reading text.

In the analysis of RSs, the strategies which were reported by the participants were circled and coded as in the analysis of TAPs.

As for the last step, the strategies used in the TAPs and reported in the RSs were compared. When the same strategies used in the TAP were reported in the RS, a plus (+) was put next to the strategy code. On the other hand, when a strategy which was not used in the TAP was reported in the RS, a minus (-) was put next to the strategy code on the transcriptions. In the taxonomy table, these strategies, which were not used in the TAP but reported in the RS, were stated with a capital (R) preceding its frequency.

Two samples extracted from the TAP and RS transcriptions in Table 7 display how the TAPs and RSs were analyzed. The passage segments and RSs are written in small letters, and the TAP segments are displayed in capital letters. The underlined sections refer to the sections which were in fact circled on the original transcriptions.
Capitals under the underlined phrases indicate the strategy codes. Both samples were translated into English.

Table 7

<table>
<thead>
<tr>
<th>TWO SAMPLES DISPLAYING THE DATA ANALYSES OF TAPs AND RSs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IN THE TAP</strong></td>
</tr>
<tr>
<td>uE: &quot;... Soon afterwards, however, the downfall of the Zulu empire started by dismesion among the blacks themselves,<strong>DISMESION, STARTED BY</strong></td>
</tr>
<tr>
<td>SAMPLE 1</td>
</tr>
<tr>
<td>uD: &quot;... He was a clever military leader with yobitable political ambitions. <strong>YOBITABLE THIS SUFFIX</strong> -ABLE MIGHT MEAN TO<strong>WA</strong></td>
</tr>
<tr>
<td>SAMPLE 2</td>
</tr>
<tr>
<td>Note. uE = The participant E from the upper-intermediate level group uD = The participant D from the upper-intermediate level group</td>
</tr>
</tbody>
</table>

In the comparison of the two sets of data, the TAPs and RSs, the TAP data were considered as the primary source of data, because as mentioned earlier, the RSs were conducted in order to overcome two
shortcomings of the TAPs (Haastrupt, 1987). First, some participants' TAPs were difficult to interpret. Second, some participants' reporting in their TAPs were incompletely.

The transcriptions of the RSs were coded to determine the strategies not been reported during the TAPs. That is to say, each strategy used in the TAP was not expected to be reported in the RS; instead, the strategies which had not been used during the TAP but reported in the RS were taken into consideration. To sum up, the frequency of each strategy used during the TAP and reported in the RS were included in the taxonomy tables. In this way, completeness of the verbal data was assured.

After the comparison of two sets of data, both the strategies used in the TAPs and reported in the RSs and the frequency of the strategies were presented in the related taxonomy tables.

An extract from different participants' TAPs and RSs is given below to give an impression of the strategy types in Table 8. Letter (u) refers to the upper-intermediate level participants whereas letter (b) refers to the beginning level participants. A, B, C, D, F refer to the names of the participants.

Table 8
**Sample TAP and RS Extracts for Each Strategy Types in the Taxonomy**

<table>
<thead>
<tr>
<th>STRATEGY</th>
<th>TAP</th>
<th>RS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contextual clues</td>
<td>uF: He was a clever military leader, A CLEVER LEADER, WITH .. yobitable, political ambitions .. HIS POLITICAL ABILITIES</td>
<td>I looked at the beginning of the sentence, he was a clever military leader. He is a leader, with some abilities. I mean with this and that features.</td>
</tr>
</tbody>
</table>
Table 8 (continued)

Word analysis

bF: DISMATION .. MESION, MESION. DIS- IS A NEGATIVE PREFIX

(for the test word dismision)

Dis- and -mesion affixes helped me in my guessing.

Knowledge of the world

uC: YES, JARN IS SOMETHING RELATED TO MONEY. IT MIGHT MEAN EARN .. IT MIGHT MEAN SPEND .. BECAUSE WHEN I HEAR MONEY WORD THE FIRST THING THAT COMES TO MY MIND IS TO EARN MONEY. MAYBE IT IS BECAUSE I AM LOOKING FORWARD TO FINISHING THE UNIVERSITY AND EARNING MY OWN MONEY

(for the test word jarn)

Because when I hear money, I usually remember rich people and earning money.

Part of the speech

bD: the fatance shows FATANCE SHOWS, THE FATANCE IS AGAIN A NOUN HERE.

(shows is in the present tense here, and the fatance is a noun as I told you (in the TAP)).

(for the test word fatance)

Intralingual phonological association

bF: jarn more money .. MORE MONEY, JARN JAR, JAM ..

(He did not report anything about his using this clue in his RS)

(for the test word jarn)

Interlingual phonological association

uB: physical and .. RİTMİK I WONDER IT MIGHT MEAN RİTMİK (a Turkish word which is similar with the pronunciation of rumic)

(He did not report anything about his using this clue in his RS)

At the end of the word rumic, -mic reminded me of the Turkish word rumic.

(for the test word rumic)
Table 8 (continued)

Interlingual collocation
bC: PHYSICAL AND RUMIC HEALTH .. HERE RUMIC HEALTH MUST BE RUHSAL (a Turkish word which means mental). YES, FIZIKSEL VE RUHSAL (physical and mental).

(for the test word rumic)

Translation
uA: Compared to single men of the same age group, AYNI YAS GURUBUNDAKı BEKAR ERKEKLERE KIYASLA .. EVLI ERKEKLER ..

(for the test word rumic)

Uncertainty of familiarity
uc: I AM NOW ANGRY WITH MYSELF, BECAUSE I LEARNED DISMESHION LONG AGO, I GUESS, BUT I DO NOT REMEMBER IT NOW.

(for the test word dismesion)

Self-questioning
uB: IT IS A FACT THAT MARRIAGE BRINGS POSITIVE EFFECTS, WHAT MIGHT SHOW THIS? CRITICS .. CAN IT BE CRITICS?

(for the test word fatance)

During the data analysis, the participants' initials instead of their full names were used, but after the analysis, letters replaced their initials, because each participant was assured that their names would not appear anywhere in this research.
Test the Interrater and Intrarater Reliability of the Analyses of TAPs and RSs

For the interrater reliability of the analysis, six randomly selected transcriptions of the beginning and upper-intermediate level participants were coded by a colleague interested in foreign language strategy research. The researcher's analysis and categorization was compared with her colleague's results (Seliger & Shohamy, 1989). At the end, a high degree of agreement was achieved between the researcher's analysis and her colleague's. The small insignificant disagreements were solved through negotiations.

For the intrarater reliability of the analysis, six randomly selected transcriptions were reanalyzed by the researcher a week after the first analysis in order to compare the degree of agreement between the first and second analyses (Seliger & Shohamy, 1989). As in the interrater reliability, a high degree of agreement of intrarater reliability was obtained.
Results

The frequencies of the strategies used for guessing the unknown/test words are reported in Table 9.

Table 9
The Guessing Words-in-Context Strategies Used With Their Frequencies

<table>
<thead>
<tr>
<th>STRATEGIES</th>
<th>BEGINNING LEVEL PARTICIPANTS</th>
<th>UPPER-INTERMEDIATE LEVEL PARTICIPANTS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contextual clues</td>
<td>164</td>
<td>96</td>
<td>260</td>
</tr>
<tr>
<td>Word analysis</td>
<td>7</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Knowledge of the world</td>
<td>8</td>
<td>13</td>
<td>21</td>
</tr>
<tr>
<td>Part of the speech</td>
<td>5</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Intralingual phonological association</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Interlingual phonological association</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Interlingual collocation</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Translation</td>
<td>132</td>
<td>63</td>
<td>195</td>
</tr>
<tr>
<td>Uncertainty of familiarity</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Self-questioning</td>
<td>15</td>
<td>22</td>
<td>37</td>
</tr>
<tr>
<td><strong>TOTAL STRATEGY USE</strong></td>
<td>337</td>
<td>224</td>
<td>561</td>
</tr>
</tbody>
</table>

Three surprising results were obtained in the present study. Firstly, there were small differences in terms of the types of strategy use between the beginning and upper-intermediate level participants. All strategies in the taxonomy except for one, uncertainty of familiarity were used by both levels (see Table 9).

Secondly, both groups of students frequently used the same strategies. That is to say contextual clues and translation (see
Table 9). The researcher did not expect the participants to use the strategy of translation at such a high rate when including this category in the taxonomy.

Thirdly, the present study showed that the beginning level students had used the guessing words-in-context strategies more frequently than the upper-intermediate level students. The total strategy use by the beginning level participants was 337 including nine strategy types in the taxonomy whereas the upper-intermediate level participants' total strategy use was 224 including all ten strategies in the taxonomy.

Word analysis, intralingual phonological association, interlingual phonological association, interlingual collocation were the strategies used by both groups at almost the same frequencies whereas there was an obvious difference in the frequencies of the use of contextual clues, knowledge of the world, part of the speech, translation and self-questioning.

It was interesting that the upper-intermediate level participant E reported more strategies in his RS than he used in his TAP for the test words dismesion, jarn and fatance. In his RS, he was more comfortable and reported the strategies that he had not used during his TAP. When asked why he did not think-aloud if he had in fact used the strategies reported in the RS, he said, "I was just trying to find out the meaning of the underlined (test) words in my TAP, and I did not think of or remember the importance of my telling everything in my mind during the TAP." On the basis of his statement, everything he reported in his RSs was considered as valid data.
Data in Tables

Nine different types of strategies in the taxonomy were used by the beginning level participants for each test word. On the other hand, the upper-intermediate level participants used all ten strategies. In addition, the frequency of use for each strategy type was varied from the test word to test word. For this reason, these frequencies are reported in a separate table for each test word which displays what strategies were used and how often these strategies were used.

Table 10 displays the strategies with their frequencies used to guess the test word *yobitable* in the first TAP reading text. As mentioned earlier, the strategies which were not used during the TAPs but reported in the RSs were stated through a capital (R) with its frequency in the front.
Table 10
The Strategy Types With Their Frequencies for the Test Word Yobitable

<table>
<thead>
<tr>
<th>STRATEGIES</th>
<th>BEGINNING LEVEL</th>
<th>UPPER-INTERMEDIATE LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contextual clues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1R</td>
<td>5</td>
<td>1R</td>
</tr>
<tr>
<td>4R</td>
<td>4</td>
<td>1R</td>
</tr>
<tr>
<td>6R</td>
<td>4</td>
<td>1R</td>
</tr>
<tr>
<td>Word analysis</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Knowledge of the world</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Part of the speech</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Intralingual phonological association</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Interlingual phonological association</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Interlingual collocation</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Translation</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Uncertainty of familiarity</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Self-questioning</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Note. R = The strategies reported only in RS

The test word yobitable with the suffix -able was made up so that the participants understood the part of speech of this word or used this suffix as a clue to guess the meaning of the test word. As Table 10 displays, three beginning and three upper-intermediate level participants used word analysis strategy by using the suffix -able. Only one beginning level participant recognized the part of the speech of the test word yobitable whereas four upper-intermediate level...
participants understood that the test word was an adjective.

Three beginning and three upper-intermediate level participants asked questions to themselves such as "Can yobitable mean strong because he is a leader?", "Can it be an adjective modifying political?" to find out the meaning of yobitable.

Table 11 illustrates the strategies with their frequencies used to guess the test word dismesion in the first TAP reading text. As mentioned earlier, the strategies which were not used during the TAPs but reported in the RSs were stated through a capital (R) with its frequency in the front.
The researcher used the prefix -dis and the suffix -ion to make up the test word *dismesion* so that the participants used word analysis strategy or understood that this test word was a noun. However, only two beginning and two upper-intermediate level participants used these affixes as clues to guess the test word *dismesion* (see Table 11). In addition, only one beginning and one upper-intermediate level participants said that *dismesion* was a noun (see Table 11).

It was interesting that the participant C from the upper-intermediate level group somehow remembered the test word *dismesion*,

### Table 11

The Strategy Types With Their Frequencies for the Test Word Dismesion

<table>
<thead>
<tr>
<th>SUBJECTS</th>
<th>BEGINNING LEVEL</th>
<th>UPPER-INTERMEDIATE LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>STRATEGIES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contextual clues</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Word analysis</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Knowledge of the world</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Part of the speech</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Intralingual phonological association</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Interlingual phonological association</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Interlingual collocation</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Translation</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>Uncertainty of familiarity</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Self-questioning</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note.  \( R = \) The strategies reported only in RS
because it was a made up word, and does not exist in English. She said, "I am now angry with myself, because I learned dismesion long ago, I guess, but I do not remember it now," in her TAP.

For the test word rumic in the second TAP reading text, the strategies used by the beginning and upper-intermediate level participants are displayed in Table 12. The frequencies of each strategy use for rumic word are also illustrated in the same table.

### Table 12

<table>
<thead>
<tr>
<th>SUBJECTS</th>
<th>BEGINNING LEVEL</th>
<th>UPPER-INTERMEDIATE LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>STRATEGIES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contextual clues</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Word analysis</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Knowledge of the world</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Part of the speech</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Intralingual phonological association</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Interlingual phonological association</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Interlingual collocation</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Translation</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Uncertainty of familiarity</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Self-questioning</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note. R= The strategies reported only in RS*
The researcher did not use any affixes to make up the test word *rumic* because she expected the participants to use contextual clues to guess *rumic* rather than morphological clues. As the researcher expected, none of the participants used word analysis for the test word *rumic* (see Table 12). However, in contrary to the researcher's expectation, contextual clues were not used more frequently than they were used for other four test words (see Table 10, Table 11, Table 12, Table 13 and Table 14).

Three beginning and three upper-intermediate level participants used the Turkish collocation of *physical* to guess the test word *rumic* which replaced *mental* (see Table 12).

In Table 13, the strategies with their frequencies used to guess the test word *jarn* in the second TAP reading text are presented.
Table 13

The Strategy Types With Their Frequencies for the Test Word Jarn

<table>
<thead>
<tr>
<th>SUBJECTS</th>
<th>BEGINNING LEVEL</th>
<th>UPPER-INTERMEDIATE LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>STRATEGIES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contextual clues</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>2R</td>
<td>3R</td>
</tr>
<tr>
<td>Word analysis</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Knowledge of the world</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Part of the speech</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Intralingual phonological association</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Interlingual phonological association</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Interlingual collocation</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Translation</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Uncertainty of familiarity</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Self-questioning</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note.  R= The strategies reported only in RS

The test word jarn was replaced the word earn in the second TAP reading text. The participants were expected to remember the phonological structure of the word earn while guessing the test word jarn. As Table 13 shows, two beginning and three upper-intermediate level participants associated the test word jarn with some existing English words such as earn, warn and jar.
For the test word *fatance* in the second TAP reading text, the strategies with their frequencies are displayed in Table 14.

Table 14

<table>
<thead>
<tr>
<th>STRATEGIES</th>
<th>BEGINNING LEVEL</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contextual clues</td>
<td>A 3 B 5 C 5 D 1 E 2 F 11</td>
<td>1R</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Word analysis</td>
<td>-</td>
<td>-</td>
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<td>-</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Knowledge of the world</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Part of the speech</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Intralingual phonological association</td>
<td>-</td>
<td>-</td>
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<td>-</td>
<td>-</td>
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<tr>
<td>Interlingual phonological association</td>
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<td>-</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Interlingual collocation</td>
<td>-</td>
<td>-</td>
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<td>-</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Translation</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>12</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Uncertainty of familiarity</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Self-questioning</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note. \( R \) = The strategies reported only in RS

Both the beginning and upper-intermediate level participants frequently used contextual clues and translation (see Table 14). Both groups of participants used fewer types of strategies less frequently compared to other test words (see Table 10, Table 11, Table 12, Table 13 and Table 14).
As can be seen from the tables, it can be concluded that the use of guessing-words-in-context strategies varied according to the following clues: (a) phonological structures of the test words, (b) contextual richness of the passages rather than the proficiency level of the students, (c) morphological clues in the test words that could be used for guessing such as prefixes and suffixes.

The phonological structure of the test words were used by both groups of levels when there were available clues as in the test words rumic and jarn (see Table 12 and Table 13). For example, the beginning level participant D associated the test word jarn with the word jar in English. He said, "jar means kavanoz (in Turkish) but ... ", and laughed at himself in his TAP. Again, the test word jarn reminded the upper-intermediate level participant D of the word warn in her TAP. She said, "I associated jarn with warn, but jarn might mean earn."

The contextual richness of the sentence with the test word rumic determined the frequent use of the strategy of the interlingual collocation for the test word rumic.

Both the beginning and upper-intermediate level participants used affixes as clues to guess the test words as for the test words yobitable and dismesion (see Table 10 and 11).

To sum up, in the present research, the context, the phonological structures of the test words and morphological clues in the test words influenced the types of guessing-words-in-context strategies as well as the frequencies of the strategies. The proficiency level of the participants did not significantly affect the strategy types but the frequency of the strategy use.
CHAPTER 5  CONCLUSION

Introduction

In this chapter, the following information was presented:

1. The study was summarized in terms of the results found in the present study.
2. The results found in the present study were discussed.
3. Pedagogical implications for future instruction were suggested.
4. Implications for future research were recommended.

Summary of the Study

The present study investigated six beginning and six upper-intermediate level students' guessing words-in-context strategies. It was found that the beginning level participants used strategies more frequently than the upper-intermediate level participants, and contextual clues and translation were the most frequently used strategies by both groups of students. Both groups used almost the same number of strategies; the beginning level participants used nine types of strategies, and the upper-intermediate level participants used ten.

The results indicate that the phonological structures of the test words, morphological clues in the test words, and contextual clues in the texts determined the types of the strategies. In other words, the guessing words-in-context strategies did not vary according to the proficiency level of the participants.

Discussion of the Results

The reason for more frequent use of the strategies by the beginning level students than the upper-intermediate level students can be explained in terms of the beginning level participants' limited vocabulary and grammar knowledge, as Haynes stated (1984). All of the six beginning level participants tried to understand each single word or
sentence because they did not know most of the words or structures used in the passages such as consequently, available, ambitions, successful, occupations, single and the usage of the simple present or past tenses. Moreover, they reread each passage after the first reading, and as a result, they used strategies more frequently to guess the test words than the upper-intermediate level students.

The frequent use of contextual clues is contradictory to the results of the study conducted by Bensoussan and Laufer (1984), because in their study, it was found that the participants did not use the contextual clues at a high rate to guess the unfamiliar words. On the other hand, both the high and low proficient students frequently used the same strategy as in the present study.

The finding of the frequent use of global clues in the present study is also contradictory to the findings of the study done by Haynes (1984). In her study, local clues such as word analysis rather than global clues, which refer to the contextual clues, were used by the participants. In fact, word analysis was the most frequently used strategy by both high and lower proficient participants in Haynes' (1984) study.

The participants in this study might have used the strategy of translation frequently because they were told to use their native language, Turkish during the research. O'Malley and Chamot (1990) also pointed that the use native language in the process of verbalizing thoughts could affect the results of studies done in the field of learning strategies.

Although it is suggested that recognizing the part of the speech of unknown words is beneficial for guessing (Clarke & Nation, 1980), this strategy was not used at a high degree by either the beginning or the upper-intermediate level students in this study.
Uncertainty of familiarity was used only by one of the upper-intermediate level participant for the test word dismension. This might suggest that if the test words had existed in English, this strategy might have been used more frequently as in the study conducted by Haynes (1984).

Pedagogical Implications for Future Instruction

A generalization based on the results of the present study cannot be offered because only twelve subjects participated in the study. Nevertheless, some suggestions can be provided for EFL classes on the basis of the present study's results.

Guessing words-in-context strategies can be suggested in order to strengthen both ESL and EFL students' reading pace and comprehension. To accomplish this aim, students can be encouraged to investigate their own guessing words-in-context strategies by taking notes about the clues that helped them to guess the unknown words in reading texts (Oxford, 1990). As long as time is available, teacher might occasionally spend five or ten minutes in the classroom on checking students' notes on the clues they have used. When students use this note-taking technique on the clues habitually, they will find out their own guessing words-in-context strategies that are most helpful for them, and consequently they become more aware of their learning process (Oxford, 1990).

In spite of the fact that TAP is a very effective way for EFL and ESL teachers to understand what a student is thinking at the moment of the guessing process, it is not practical to use in the classroom, because the students should be studied individually which requires too much time (Oxford, 1990). Moreover, during a TAP, a complete silence should be maintained, otherwise the flow of the thinking process of the student is broken, and consequently, the validity and reliability of the data will be weaken.
Despite the impracticability of the use TAP in the classrooms, all participants in this study reported that they found think-aloud very helpful and enjoyable for their individual studies at home and that they would think aloud to guess an unknown word from the context whenever possible. In addition, they stated that they became more aware about the procedure for guessing an unfamiliar word-in-context as a result of the TAP. Thus, the TAP can be recommended as a technique for guessing unknown words-in-context when students do independent learning.

The use of guessing words-in-context strategies can also be effective in fostering independent reading (W. Grabe, personal communication, June 1, 1995). That means EFL as well as ESL teachers might not be obliged to teach every single unknown word in a reading text which takes much time (Twaddell, cited in Haynes, 1984).

Implications for Future Research

Obviously, more studies are needed to investigate the guessing words-in-context strategies. In future research, it is recommended that different test words be selected for guessing because the types of the guessing words-in-context strategies used differ from test word to test word. As the present study has shown, the more different test words are used, the more various guessing words-in-context strategies can be obtained as data.

The use of the native language in the learning strategies research can affect the results of any study as has been the case in the present research. Because the participants in this study were told to use their native language Turkish during their TAP and RS, they translated the sentences with the test word or that they did not understand. As a result, the second most frequently used strategy was the translation. However, if the participants had been asked to use English in the TAPs and RSs, such rich data could not have been obtained as O'Malley and
Chamot (1990) experienced in one of their studies done in ESL to investigate the cognitive and metacognitive strategies of beginning and upper-intermediate level students.

The present study shows that the level of the participants does not significantly affect the results; this result might have been because of the limited number of the participants. Therefore, it can be suggested that the same study be done with more than 12 students.

RSs can be a good way of collecting data to reveal the information that participants have not said during their TAPs. The combination use of TAP and RS provides rich source of data for the researcher in the studies related learning strategies. The use of RS alone, without any TAP is not suggested, because participants might report several things that they in fact did not use or think at the moment of guessing, and it is not possible to be sure what participants report after the thinking process is valuable in terms of validity and reliability.
BIBLIOGRAPHY


Appendix A

Consent Form

English version

I, .................., agree to participate in the research conducted by MUGE KANATLAR. My participation is VOLUNTARY.

It has been made clear by the researcher that my participation in the present study will not prejudice my future relations with my teachers at Osmangazi University which I attend, and my future exam results. I have also been assured that my name will not be used in the reports.

NAME AND Surname:
DATE:
SIGNATURE:

Turkish version

Ben, .......................................... MUGE KANATLAR tarafından yürütülen araştırmaya GONULÜ olarak katılmayı kabul ediyorum.

Bu katılımın, ileride halen okumakta olduğum Osmangazi Üniversitesi’ndeki hocalarımla ilişkilerimi ve sınav sonuçlarını iyi ya da kötü yönde etkilemeyeceği ve araştırmada adımı gizli tutulacağı araştırmacı tarafından bildirilmiştir.

ISIM VE SOYAD :
TARIH :
IMZA :
Appendix B

A Background Questionnaire

NAME AND SURNAME: ______________________________________________________

AGE: ______________

SEX: Female ___ Male ___

A. PLEASE ANSWER THE FOLLOWING QUESTIONS

1. Where are you from?

__________________________________________________________

2. Which high school did you graduate from?

__________________________________________________________

3. Did you attend a preparatory class at secondary school, high school or university?

__________________________________________________________

4. How long have you been learning English -- including university?

__________________________________________________________

B. CIRCLE THE CHOICE WHICH IS TRUE FOR YOU.

FOR QUESTIONS (3) AND (4) YOU MAY CHOOSE MORE THAN ONE.

1. My knowledge of vocabulary in English is _____________.
   a). beginning level
   b). intermediate level
   c). upper-intermediate level

2. My knowledge of grammar in English is ________________.
   a). beginning level
   b). intermediate level
   c). upper-intermediate level
3. The skill(s) I am most good at is (are) __________________ .
   a). listening
   b). reading
   c). speaking
   d). writing

4. Do you have any problems in any of the following skills? If yes, fill in the relevant skill(s).
   a). listening : ________________________________________
   b). reading : ________________________________________
   c). speaking : ________________________________________
   d). writing : ________________________________________

THANK YOU VERY MUCH FOR YOUR ATTENTION!
Text 1

Surveys show that more wives than husbands express bontilation with their marriage and consider their marriages unhappy. More wives start divorce proceedings. In addition, wives are much more likely to suffer from stress, anxiety and depression than their partners. Compared to their single peers, wives have lemirer physical and mental health. It is clear that for many women, marriage cannot be considered a sominive experience.

Text 2

It is not possible to veruvate how many people all over the world watch television. During the past fifteen years, watching television has become the principal form of recreation for millions of people.

In large cities, almost every family has its own television set. At times, several families in the same building come together to watch television. In villages, there may be one television set for many people. In the evenings, they sit outside and watch television programs. Watching television is probably the most popular recreation activity in the world.

By watching television programs, people learn about the world. They see and hear other people; they learn how other people live, the kind of work they do, and how they enjoy themselves. Without television, people might never know what other people thousands of miles away look like, what they do, and what their problems are. A national leader is able to talk to millions of people of his own country and to people in many other countries on television. Television gives people news of the world. Television, like jallinds, helps us to learn about the world.
Television not only helps us to learn, it also entertains us. On television, one can see and hear stories, songs, dances, and jokes. A person may be said; he may have many problems. But for a short time, in front of a television set, he can sowin away his problems and sadness.
Appendix D

Texts Used in the Think-Aloud Protocol

Text 1

At the beginning of the nineteenth century some of the Zulu clans were ruled by a king called Chaka. He was a clever military leader with viable political ambitions. He won most of south-eastern Africa and united all the Zulu clans into one great empire, the Zulu nation. Soon afterwards, however, the downfall of the Zulu empire started by dismision among the blacks themselves, and ended in conflicts with the whites.

Text 2

Marriage has been a positive effect on men. Compared to single men of the same age group, married men enjoy better physical and rumic health. Their lives are likely to be longer and happier. In addition, they enjoy more successful careers, fill higher status occupations and consequently earn more money. Critics may argue that it is simply that more successful men tend to get married, but the fatance shows that it is marriage which brings about these positive effects. Hence the best guarantee of a long, happy, healthy and successful life for a man is to have a wife devoted to homemaking and the care of her husband.
Appendix E

Statistical Summary

The Statistical Summary screen displays a variety of details about your document, including three readability scores and information on the structure of paragraphs, sentences, and words.

The Readability Statistics include:

- The Flesch Reading Ease score, ranging from 0 (very difficult reading) to 60 (standard) to 100 (very easy).
- Gunning's Fog Index, which shows the approximate reading grade level readers should have attained to understand your text. The higher the number, the more difficult the text is to read.
- The Flesch-Kincaid Grade Level, which is also a measure of reading grade level.

Suggestions
If you're preparing documents for a general audience, most reading experts agree that writing in the eighth to 10th grade reading levels is best.

At the DOS prompt, you can display the Document Summary screen, then print it by pressing Shift-PrtScr.

See Chapter 6 and Appendix F of the Professional Write User's Manual for more information.

Press Enter to go to the Create/Edit screen.
Surveys show that more wives than husbands express discontent with their marriage and consider their marriages unhappy. More wives start divorce proceedings. In addition, wives are much more likely to suffer from stress, anxiety and depression than their partners. Compared to their single peers, wives have lesser physical and mental health. It is clear that for many women, marriage cannot be considered a rewarding experience.

**Statistical summary of text 1 used in the warm-up session**

Surveys show that more wives than husbands express discontent with their marriage and consider their marriages unhappy. More wives start divorce proceedings. In addition, wives are much more likely to suffer from stress, anxiety and depression than their partners. Compared to their single peers, wives have lesser physical and mental health. It is clear that for many women, marriage cannot be considered a rewarding experience.

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It is not possible to veruvate how many people all over the world watch television. During the past fifteen years, watching television has become the principal form of recreation for millions of people.

In large cities, almost every family has its own television set. At times, several families in the same building come together to watch television. In villages, there may be one television set for many people. In the evenings, they sit outside and watch television programs. Watching television is probably the most popular recreation activity in the world.

By watching television programs, people learn about the world. They see and hear other people; they learn how other people live, the kind of work they do, and how they enjoy themselves. Without television, people might never know what other people thousands of miles away look like, what they do, and what their problems are. A national leader is able to talk to millions of people of his own country and to people in many other countries on television. Television gives people news of the world. Television, like jallinda, helps us to learn about the world.

Television not only helps us to learn, it also oostels us. On television, one can see and hear stories, songs, dances, and jokes. A person may be said; he may have many problems. But for a short time, in front of a television set, he can sowin away his problems and sadness.
At the beginning of the nineteenth century some of the Zulu clans were ruled by a king called Chaka. He was a clever military leader with yobitable political ambitions. He won most of south-eastern Africa and united all the Zulu clans into one great empire, the Zulu nation. Soon afterwards, however, the downfall of the Zulu empire started by dismension among the blacks themselves, and ended in conflicts with the whites.

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Marriage has been a positive effect on men. Compared to single men of the same age group, married men enjoy better physical and rumic health. Their lives are likely to be longer and happier. In addition, they enjoy more successful careers, fill higher status occupations and consequently earn more money. Critics may argue that it is simply that more successful men tend to get married, but the fatance shows that it is marriage which brings about these positive effects. Hence the best guarantee of a long, happy, healthy and successful life for a man is to have a wife devoted to homemaking and the care of her husband.
Appendix F

Warm-up Session Talk

English version

In this research, I am interested in what kinds of strategies students use to guess unknown words in a context. In order to do this, I will ask you to think aloud while you are trying to guess the underlined words in two different reading passages. What I mean by think aloud is that I want you to tell me in Turkish everything that goes on in your mind. Please talk aloud constantly from the time I give you the reading text until you have finished both guessing and reading.

I do not want you to interpret what you are saying; it is important to act as if you are alone in the room speaking to yourself. Please keep talking; if you are silent for more than 15 seconds, I will encourage you to speak.

DO YOU HAVE ANY QUESTIONS?

Good, now you will listen to a sample of a recorded think-aloud session. While listening, you can follow the participant through this text used for this recorded session.

ANY QUESTIONS?

Yes, I will give you a separate passage and you will practice think-aloud process before we begin the real experiment.
Turkish version

Bu çalışmada, bir okuma parçasında geçen bilinmeyen kelimeleri tahmin etmek için öğrencilerin ne gibi stratejiler kullanıdıklarıyla ilgileniyor. Bu nedenle de iki ayrı okuma parçasında geçen altı çizili kelimelerin ne anlama geldiği tahmin etmeye çalışırken yüksek sesle düşünmek için yüksek sesle düşündüğümü rica ediyorum. Yüksek sesle düşünmeden başlamış sun; senden bu okuma parçalarında geçen kelimeleri tahmin ederken aklından geçen herseyi yüksek sesle ve Türkçe bana söylemeni istiyorum. Lütfen okuma parçasını verdüğim andan itibaren tahminlerini bitirene kadar yüksek sesle konuşmaya devam et.

Senden, ne demek istediğini bana açıklamamı istemiyor. Aksine odada tek başına kendine konușma gibi davranmış gibi davranman çok önemlidir. Lütfen, devamı konuş. Eğer 15 saniyeden fazla bir süre sessiz kalırsan, sana konuşmaya devam etmen için uyaracağım.

SORMAK İSTEDİĞİN BİR ŞEY VAR MI?

Güzel, şimdi böyle bir çalışmanın kaydedilmiş örneğini dinleyecsiniz. Dinlerken, konuşmacıyı şu paceadan takip edebilirsin.

SORMAK İSTEDİĞİN BİR ŞEY VAR MI?

Evet, şimdi asıl çalışmayı başlamanın önce "yüksek sesle düşünme" konusundada pratik yapmanız için ayrı bir poşaj veriyorum. Lütfen başla.
Appendix G

Codification Scheme for the Guessing Words-in-Context Strategies

1. CC -- contextual clues
2. WA -- Word analysis
3. BK -- Knowledge of the world
4. PS -- Part of the speech
5. PA -- Intralingual phonological association
   Eng.
6. PA -- Interlingual phonological association
   Tur.
7. IC -- Interlingual collocation
8. T -- Translation
9. UF -- Uncertainty of familiarity
10. SQ -- Self-questioning
Appendix H

Transcription Conventions for Think-Aloud Protocols

1. The text portions were typed in small letters, and think-aloud portions were typed in capital letters.

2. Pauses less than 15 seconds were illustrated with two dots (..).

3. Pauses more than 15 seconds were illustrated with three dots (...).

4. Physical behaviours such as coughing, laughing or clearing throat were written in parenthesis and small letters, e.g. (clears throat), (laughs).

Transcription Conventions for Retrospective Sessions

1. Both the participant and researcher talk portions were typed in small letters, but the researcher talk portions were underlined.
Appendix I

Sample Think-Aloud Protocols and Retrospective Sessions

Sample 1

The upper-intermediate level participant D

Beginning: 16:00  finish: 16:40
warm-up + think aloud + retrospection: 40 minutes

THINK ALOUD PROTOCOL

ZULU

At the beginning of the nineteenth century some of the Zulu clans were ruled by a king called Chaka. He was a clever military leader with yobitable political ambitions. He won most of south-eastern Africa and united all the Zulu clans into one great empire, the Zulu nation. Soon afterwards, however, the downfall of the Zulu empire started by dismesion among the blacks themselves, and ended in conflicts with the whites...
(1) BU SIYAHLARLA BEYAZLAR ARASINDA GEÇEN BIR OLAYI ANLATIYOR, YANI ONLARIN ARASINDAKI BIR KIYASLAMA .. some of the Zulu clans were ruled by a king called Chaka.
(2) CHAKA DIYE BİR KRAL VARMIS .. He was a clever military leader with yobitable political ambitions ..
(3) YOBITABLE .. BU EKLE, BANA ABLE, BİR ŞEY YAPMAYA .. YAPIMCI OLAN YANI YAPILABILIR, ABLE EKINDEN ÖYLE BİR ŞEY GELİYOR .. POLITICAL, POLITIK .. BIR SIFAT AMA, He was a clever military leader with yobitable political ambitions ..
(4) YOBITABLE .. YANI SADECE -ABLE EKINDEN BİRSEYLER GEİLHELIYOR, DIĞERLERINDEN HIÇBİR ŞEY ANLAYAMIYORUM. O DA BİR ŞEY YAPILABILIR, POLITIK .. YOK, BUNU GEÇIYORUM .. DISMESION, Soon afterwards, however, the downfall of the Zulu empire started by dismesion among the blacks themselves, Soon afterwards, however, the downfall of the Zulu empire started by dismesion among the blacks themselves, (5) DISMESION .. SIYAHLARA .. DISMESION ..
(6) HAH, SIYAHLARLA BEYAZLAR ARASINDA BIR KIYASLAMA YAPIYOR VE .. ONU ANLATIRKEN KULLANDIGI BİR ARAÇ BY EKI ILE BİR ARAÇ DISMESION, BY DISMESION .. BIR ISİM VE SADECE ARAÇ OLDUĞUNU ANLAYABILYORUM. DİĞER TÜRLÜ HIÇBİR TAHMİNDE BULUNAMIYORUM ANLAMI HAKKINDA .. BU KADAR.
1. THIS TEXT IS TALKING ABOUT AN EVENT BETWEEN THE WHITES AND BLACKS, I MEAN IT IS A COMPARISON BETWEEN THEM.

2. THERE WAS A KING CALLED CHAKA.

3. YOBITABLE .. THIS SUFFIX, TO ME ABLE, TO DO SOMETHING .. SOMETHING HELPFUL I MEAN SOMETHING THAT CAN BE DONE, ABLE SUFFIX IS SOMETHING LIKE THIS .. POLITICAL

4. YOBITABLE .. I MEAN ONLY THIS -ABLE SUFFIX MEANS SOMETHING TO ME, I DO NOT UNDERSTAND ANYTHING FROM THE OTHERS. THIS MEANS SOMETHING CAN BE DONE, POLITICAL .. NO, I SKIP THIS .. DISMERSION,

5. DISMERSION .. TO THE BLACKS .. DISMERSION .. THIS DOES NOT MEAN ANYTHING TO ME EITHER, I CAN ONLY UNDERSTAND THAT IT IS A NOUN WITH THE HELP OF ITS AFFIXES .. AND DISMERSION ..

6. AHA, A COMPARISON BETWEEN THE BLACKS AND WHITES IS MADE AND .. BY IS A MEANS TO TELL THIS WITH BY SUFFIX DISMERSION IS A MEANS, BY DISMERSION .. I CAN ONLY UNDERSTAND THAT IT IS A NOUN AND MEANS. I CANNOT OFFER ANY GUESSES FOR ITS MEANING .. THAT IS IT.

RETROSPECTIVE SESSION

Yobitable kelimesini tahmin ederken sana neler vol gâstirdi, nelerden faydalandin ?
(What guided you when guessing the word yobitable, what helped you ?)

Sadece -able eki aklıma geldi. Sifat olduguunu anlamadi.
(Only -able suffix meant something to me. I understood that it was an adjective)

Peki dismesion'da ?
(What about for dismesion ?)

Şu by ile bir araç oldugunu, yani onun kullanildigini. By yardimeci oldu, bir de su sondaki -ion eki isim oldugunu anlamama yardimeci oldu. Başka da bir sey yoku.
(With the help of this by I understood, I mean it is used. By helped me, in addition this suffix -ion helped me to understand it was a noun. There was nothing that helped me.)
Marriage has been a positive effect on men. Compared to single men of the same age group, married men enjoy better physical and rumic health. (1) RUMIC HEALTH. YANI DAHA SAĞLIKLI OLABILIRLERİMİŞ POZİTİF DEDIĞİNE GÖRE OLMUMLU BİRSEYLER OLHAMI LAZIM. Their lives are likely to be longer and happier. In addition, they enjoy more successful careers, fill higher status occupations and consequently earn more money. (2) KAZANMAK GIBI OLARABILİR, YANI PARA KAZANMAK. Critics may argue that it is simply that more successful men tend to get married, but the fatance shows that it is marriage which brings about these positive effects. Hence the best guarantee of a long, happy, healthy and successful life for a man is to have a wife devoted to homemaking and the care of her husband. (3) ŞİMDİ RUMIC HEALTH DENİSTİK, Compared to single men of the same age group, married men enjoy better physical and rumic health. (4) EVLİLİK ERKEKLER ÜZERİNDE OLMUMLU BİR ETKİ YARATTICİ HAKINDA BU PARAGRAF, VE BURDA DA SAĞLIK DURUMLARI, RUMIC. POSITIVE EFFECT DEDIĞINE GÖRE ILK CÜMLEDE, OLMUMLU BİRSEY OLMALI. VE RUMIC BİR, YANI ONU NİTELEYEN BİR SİFAT, RUMIC HEALTH MUTLU VE SAĞLIKLI OLUYORLAR HERHALDE, GEREK RUH ILK CUMLEDE PHYSICAL DEDIĞİNE GÖRE, FİZİĞİMİ ANLATTIĞINA GÖRE BU DA RUH DURUMU OLABİLİR. DAHA SAĞLIKLI OLDUKLARINI ANLATIYOR, SONRA, In addition, they enjoy more successful careers, fill higher status occupations and consequently earn more money. (5) DAHA ÖNCE SOYLÜDİCİN GIBI HERHALDE PARA KAZANMAK OLARABİLİR, ÇUNKU IŞLERİNDE DAHA IYI KARIYERLERE, DAHA IYI STATÜLERE SAHIP OLARABİLİYORLARMIŞ KI BU ÖZELLİKLER İNSANA DAHA ÇOK PARA KAZANDIRIR, ÇUNKU MEVKİ ARTTIKÇA PARA ARTIYOR. O DA PARA KAZANMAK GIBI, WARN. ASLINDA BU DANA WARN I ÇAĞRISIM YAPTIYOR. Bu da para kazanmak olabilir. Critics may argue that it is simply that more successful men tend to get married, but the fatance shows that it is marriage which brings about these positive effects. (6) BİRÇOK KRİTIKLERE GORE, BİRÇOK.. BEKAR PARDON, BİRÇOK BAŞARILI ERKEKLER.. EVLENMEK EGİLİMİNDELİRMISS, FAKAT.. FATANCE YANI ISTATISTIK TÜRÜ BİRSEY OLARABI. YANI GÖSTERDİCİN GÖRE, SHOWS DEDIĞİNE GÖRE VE BAŞTA DA BAZI KRİTIKDEN FAAL RAHSETTİCİNE GÖRE.. BENCE BİR İSTATISTİK VEYA BİR ANKET TÜRÜ BİRŞEY YANI SONUÇTA BİR VERİ ELDE EDİYORSUNÜZ, BİR GENELLEME YAPABİLİYORSUNÜZ O TÜR BİRŞEY, BU KADAR.
Translated Segments of the Think-Aloud Protocol

In English

1. RUMIC HEALTH .. I MEAN THEY CAN BE HEALTHIER SINCE IT SAYS POSITIVE, IT MUST BE SOMETHING POSITIVE

2. IT MIGHT BE SOMETHING LIKE EARN, I MEAN EARN MONEY

3. NOW WE HAVE SAID RUMIC HEALTH,

4. THIS PARAGRAPH TELLS THAT MARRIAGE HAS BEEN A POSITIVE EFFECT ON MEN, AND HERE THEIR HEALTH, RUMIC .. SINCE IT SAYS POSITIVE EFFECT IN THE FIRST SENTENCE, IT MUST BE SOMETHING POSITIVE, AND RUMIC IS A, I MEAN AN ADJECTIVE MODIFYING THAT, RUMIC HEALTH .. THEY BECOME HAPPY AND HEALTHY I GUESS, BOTH SPIRIT, SINCE IT SAYS PHYSICAL IN THE FIRST SENTENCE, SINCE IT TELLS ABOUT PHYSICAL, THIS MIGHT BE MENTAL. IT TELLS THAT THEY ARE HEALTHIER, THEN,

5. AS I SAID EARLIER IT MIGHT PROBABLY MEAN EARN MONEY, BECAUSE THEY CAN HAVE BETTER CAREERS, BETTER STATUS AT THEIR JOBS WHICH MEANS THEY EARN MUCH MORE MONEY, BECAUSE THE MORE YOU FILL HIGHER STATUS THE MORE YOU EARN. IT IS LIKE EARNING MONEY, WARN. IN FACT I ASSOCIATED THIS WITH WARN. THIS MIGHT BE EARN MONEY.

6. ACCORDING TO MANY CRITICS, MANY .. SINGLE PARDON ME, MANY SUCCESSFUL MEN .. TEND TO GET MARRIED, BUT .. FATANCE I MEAN IT CAN BE SOMETHING STATISTICAL. I MEAN SINCE IT SHOWS, SINCE IT SAYS SHOWS AND SINCE IT IS TALKING ABOUT CRITIC .. IN MY OPINION IT IS STATISTICS OR SOMETHING LIKE A QUESTIONNAIRE I MEAN YOU GET DATA AT THE END, YOU CAN MAKE A GENERALIZATION SOMETHING LIKE THAT, THAT IS IT.

RETROSPECTIVE SESSION

Rumic kelimesini tahmin ederken sana neler yardımcı oldu? (What helped you when guessing the word rumic ?)

Positive demis, bir kere olumlu bir etki olduğunu ordan anlayabiliyorum, ilk cümleden. Sonra sağlık, health demis, sağlık durumu, yalnız bu gerek vücut sağlığı gerekse yani dışüncе ile ilgili birçok olabilir ama ilk physical dediğine göre bedensel olduğunu ilk önce açıklamis ve (and) demis (or) demiş, and dediğine göre de bu daha farklı birçok olabilir, yani aynı, benzer ama aralarında mutlaka bir farklılık olacak. Bu rumic de ruhsal durumu gibi geldi bana. Yani positive, health, physical ve and kelimeleri yardımcı etti.
(It says rumie, first, I can understand there is an positive effect, with the help of the first sentence. Then it says health, health, but this can be either physical health or mental health but since it says physical in the first sentence it explains that it is physical and it says (and) not (or), since it says and, this can be something different, I mean same, similar but there will be a difference between them certainly. This rumic is mental I guess. I mean positive, health, physical and and words helped me.)

Peki jarn'da neler yardımcı oldu ?
(What helped you for jarn ?)

(First of all, it says money here. Since it says more money, how more money can be, you will either increase or earn money nothing comes to my mind when I hear money. I usually remember to earn money or save money. More the occasions that help people earn much more money, for example it says successful careers, then higher status, I mean since all these things remind me of earning much more money, I thought that. Moreover, I associated jarn with warn when I first read.)

Fatance'da neler yardımcı oldu ?
(What helped you for fatance ?)

Critics demiş ilk önce, orda bir kritiklerden falan bahsetmiş yani o da anket türü bir olay olabilir diye düşünüm, critic yardımcı oldu. Sonra genelde zaten that more successful men falan demiş, yani burda bir genellemeye gitmiş, genellemeye gittigine göre bir, ilk cümlede bir genellemeden bahsettigine göre but demiş, ama gene critics yardımcı oldu.
(First it says critics, it is talking about critics I mean I thought it might be something like a questionnaire, critic helped me. Then it usually says more successful men, , I mean there is a generalization, since there is a generalization, since there is a generalization in the first sentence, it says but, but again critics helped me.)
Sample 2

The beginning level participant B

Beginning: 21:50  Finish: 23:00

warm-up + think aloud + introspection: 70 Minutes

THINK ALOUD PROTOCOL

ZULU

At the beginning of the nineteenth century ONDOKUZUNCU YUZYILDA, BASLIYOR, some of the Zulu clans ZULU CLAN, BU BIR SEY, BIR BIR TOPLULUK ZULU CLANS were ruled by a king called Chaka. CHAKA KRALINI CAGRIYOR, ONU ISTIYOR He was a clever military CLEVER MILITARY MILITAN, ASKER, ASKERLERINE BIR GOREV YOBITABLE political ambitions. POLITIK POLITIKAYLA ALAKALI BIRSEY, YOBITABLE POLİTİCAL, BU POLİTİKASIYLA, ONUN POLİTİKASI, SAVAS, YOBİTABLE, YUMUSAK POLİTİKASIYLA, OTORİTER POLİTİKASIYLA ASKERLERIN LİDERI He won most of south-eastern Africa KAZANDI, HER ZAMAN, KAZANDI AFRIKA'DA, SOUTH GUNES, GUNES DOGU AFRIKA'DA KAZANDI and united all the Zulu clans into one great empire, GENE BU ZULU CLANS, UNITED ULKELE, all the Zulu clans TUM ZULU CLANSLAR, into the one great empire BIR BUYUK SEYIN ICINDE, TOPLULUGUN ICINDE the Zulu nation. ZULU MILLETI.

Soon afterwards, SOON GOCUKLARI MI? afterwards WARSDAN, SONRA however, the downfall of the Zulu empire started by dismension among the blacks themselves, BLACKS THEM SELVES, ONLARIN, DISMERSION, EMPERYAL, ZULU EMPERYAL, EMPERYAL started by dismension, ZULU HAKIMIYETI, BASLADI, DISMERSION, BIR OLAYLA BIRLIKTE ZULU HAKIMIYETI BASLADI, ZULU EMPIRE BASLADI among the blacks themselves ONLARIN SIYAH BLACKS SIYAH and ended in conflicts with the whites. BEYAZLAR ILE SON BULDU, ENDED SON BULDU. Zulu empire started by dismension among the blacks themselves ZULU MILLETI, EMPIRE STARTED, DISMERSION, BIR OLAYLA BIRLIKTE ZULU HAKIMIYETI BASLADI, ONLARIN SIYAH MILLET UZERINDE, BU KADAR.
RETROSPECTIVE SESSION

Yobitable kelimesini tahmin ederken sana neler yol gösterdi, neler yardımcı oldu?

İlk önce yobitable'den sonraki kelime, politik. Yani onların arasında bağıntı kurdum. With yobitable politik, yani yumusak bir politika mi, yoksa zulmeden bir politika ile mi onların lideri oldu. O anda badan politik kelimesi ile bağıntı kurdum.
Peki dismesyon için?


THINK ALOUD PROTOCOL

MARRIAGE

Marriage has been a positive effect on men. Compared to single men, marriage has been positive. Compared to single men of the same age group, married men enjoy better physical and mental health. In addition, they enjoy more successful careers, fill higher status occupations and consequently earn more money.

Critics may argue that it is simply that successful men tend to get married, but the fact that marriage brings about these positive effects shows that it is marriage which brings about these positive effects.
RETROSPECTIVE SESSION

Rumic kelimesini tahmin ederken sana neler yardımcı oldu?

Physical kelimesi yardımcı oldu. Physical psikoloji anlamında mi bilemeyeceğim ama Physical kelimesinden aklıma hal ve hareket geldi. Bir de evli erkekler married men. Yani evli erkekle ilgili birsey olması gerek, onların yaptiği hal ve hareketler.

Jarn’ın neler yardımcı oldu?

Jarn kelimesini tam tahmin edemedim, ama more money bana yardımcı oldu.

Fatance’da nelerden faydalandın, neler yardımcı oldu?

Fatance’da shows, but the fatance shows, birsey gösteriyor. Fakat birsey hareketleri. Shows, fatance shows.