



An investigation into translation students' English reading comprehension skills and strategies: a cross-sectional study

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ABSTRACT

The present study aimed at investigating different reading comprehension strategies applied by Iranian B.A students of translation while translating a text from English to Persian. In doing so, thirty-two students (sixteen sophomores and sixteen seniors) were given a text with a nearly high level of difficulty to be translated. This level of difficulty was double-checked by two professors in advance. Each and every step taken during the process of translation was then tape-recorded and further placed in the classes of 'general' vs. 'local' reading comprehension strategies pointed out by Block (1992), which is based on think-aloud protocols. The results of the Chi-Square tests indicated that there were statistically significant differences in terms of the frequencies of local strategies among the 'higher' vs. the 'lower' level of students. The findings also revealed that there were no statistically significant differences in using the general strategies among such students.

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Introduction

With the population rise over the past decades in Iran, the number of students who tend to study different academic fields of science has faced a sudden change. Although the aims and objectives of these fields may vary significantly in type and nature (Tourey, 1995), they all have some perspectives in common. In other words, they share some module with one another, which is the best way of approving the importance level of that topic. On the other hand, English as a Foreign Language (henceforth EFL) is one of the subjects worked on in nearly all majors at different universities all over Iran. No matter one is the student of psychology, chemistry, mathematics, etc., it is a required course to be passed by students studying at different levels of education. While dealing with the act of EFL teaching, there are mainly four basic skills to be dealt with: reading, writing, speaking and listening (Brown, 1980).

Another major related to the notion of English language is referred to as English for Specific Purposes (henceforth ESP). In these courses, the students are supposed to learn English language along with its practical functions closely related to their original field of science (Corder, 1974).

Coming to translation and the act of translating, two of the aforementioned skills hold a higher degree of importance, namely reading and writing. Likewise, during the act of interpreting, listening and speaking are more highlighted. This is in fact due to the nature of such majors.

One of the most important language skills in nearly all translation projects is meant to be the reading comprehension skill. This is not to say the other three skills are less important; quite the contrary, the four aforementioned skills are mostly known to have significant inter-relationships (Reid, 1993). In all four-year English related majors in Iran, the first two years of the program are devoted to language training and the following two years tend to narrow down to specific courses. For Translation Studies, these courses include linguistics and translator training ones. However, there is a growing concern among the Iranian translation instructors and professors as to

whether the students who have already passed the second year and thus focused on specialized courses are neglected in terms of their reading comprehension skills and strategies. The question remains as to whether the students' Language 2 (henceforth L2) reading skills continue to develop after they proceed from the language training component to their linguistics and translator training courses or not.

The present study aimed to investigate the reading comprehension strategies applied by Iranian undergraduate students of translation while translating from English to Persian. It is assumed that the curriculum designers, EFL professors and translation instructors have the potentialities to benefit from the outcomes of the present cross-sectional study.

The present study attempted to find suitable answers to the following posed research questions through applying the later-introduced method:

Is there any significant difference in the frequency of different reading comprehension strategies applied by higher and lower-level Iranian students of translation while translating from English to Persian?

Is there any significant difference in the nature of different reading comprehension strategies applied by higher and lower-level Iranian students of translation while translating from English to Persian?

Review of the Related Literature

As it was mentioned in before, the square-like four main skills for learning a language consist of listening, speaking, reading and writing. The term square is assumed to be a justifiable one, as all these four skills are viewed equally and relatively important. In fact two of these skills are known to be "encoding" ones, namely writing and speaking, as the writer or the speaker makes a code while dealing with these acts. The other two skills, namely listening and reading are referred to as "decoding" ones, as the listener or the reader is trying to decode a the text in question (Farías, 2004). However, the main purpose of the present study is limited to the reading comprehension skills of the participants. In this regard, a search into the related

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literature provides us with some basic components of the topic in question, namely the reading comprehension skill.

Theoretical Considerations

The notion of reading comprehension has always been an important topic of discussion in the history of translation. As Hatim and Mason (1990, p.224) point out, the translators are in fact mediators and in a way they are “privileged readers” of the source language (henceforth SL) text and unlike ordinary readers, they “read in order to produce, decode in order to re-encode”.

One of the most obvious reasons written on the wall for reading comprehension to become a crucial part dealt with during the process of translation is that the translator has no other choice rather than reading the texts, no matter at the micro or macro levels. Séguinot (1989) states explicitly that reading a source text may not be translation-specific, but that translation includes the reading of the source text, sharing the view that translation includes not only translation-specific operations but also others such as reading a source text. Similarly, Le Feal (1988) considers reading as a prerequisite to translation, pointing out that translation in practical terms implies intelligent reading followed by competent writing.

It is assumed that a problematic product of translation, i.e. the Target Text (henceforth TT) is in fact the result of a mall-processed translation. According to Li (2001, p.344) “the translator trainers tend to forget that language competence is the most fundamental and the most important among the three components of translational competence (i.e. translation skills, strategies and translation problem solving and decision-making abilities).

While dealing with the elements involved in the process of translation, different issues must be taken into observation. According to Ivanova (1998, p.98), “most recent findings of research into language learners’ translation strategies point to one major feature of their processing: language students tend to engage primarily in lower level processing during comprehension, translation production and monitoring”.

Empirical Background

In his “fundamental factors of comprehension in reading”, Davis (1944) conducted a survey to determine the skills involved in reading comprehension that were deemed most important by authorities. Multiple-choice test items were constructed to measure each of nine skills thus identified as basic. The inter-correlations of the nine skill scores were factored, each skill being weighted in the initial matrix roughly in proportion to its importance in reading comprehension, as judged by authorities. The principal components were rather readily interpretable in terms of the initial variables. The results indicated the need for workbooks to aid in improving students’ use of basic reading skills. This study provided more detailed information regarding the skills measured by the Cooperative Reading Comprehension Tests than had heretofore been provided regarding the skills actually measured by any other widely used reading test.

In search for language levels focused by students of translation, a study was conducted by Atari (2005) studying different pairs of students in Saudi Arabia. The results of his (ibid.) study indicated that Saudi translator trainees tended to focus on lower-level textual issues, i.e. word level and phrase-level issues rather than the higher level issues, namely sentence and context-related ones.

In another research conducted by Atari and Abu Radwan (2009), they studied the reading comprehension skills and strategies applied by a number of Arab undergraduate

translation students. Using a think-aloud procedure, they (ibid.) came to the point that no significant gap between the strategies applied by students at different university levels existed. In addition, the results pointed out that there was no statistically significant difference between reading comprehension-related and thus the translation-related issues during the process of translation from English to Arabic.

Following Bachman's model of test method facets (1990), Kobayashi (2005) focuses on the nature of input and of expected response by manipulating text structures and response formats. Furthermore, the researcher examined the effects of varied text structure and response format on Japanese university students’ reading comprehension test performance. The main finding was that these two variables had a significant impact on the students’ performance. Furthermore the impact of different kinds of text structure varied considerably across different proficiency groups. In the light of this research, this paper further reported the results of a brief investigation into the suitability of the reading passages used for the university entrance examinations in Japan.

The development of reading skills in language minority learners, particularly during the middle school years remains unclear despite the increasing need for educators to serve this rapidly growing population. Thus, the English reading comprehension growth of middle school language minority learners was investigated using a longitudinal design and the simple view of reading as a theoretical framework. Students were assessed at four time points between fifth and seventh grades on standardized measures of listening comprehension, word reading, and reading comprehension in a study conducted by Mancilla-Martinez, Kieffer, Biancarosa, Christodoulou, & Snow (2011). Individual growth modeling revealed that both listening comprehension and word reading assessed in fifth grade predicted the elevation of students’ developmental trajectories in reading comprehension. However, neither skill predicted students’ growth in reading comprehension, and there was no significant variation across children in growth rates, indicating that students in seventh grade remained on a trajectory established in fifth grade. The implications of the slowing rate of reading comprehension development during the middle school years were also discussed.

In another study carried out by Guthrie et al. (2004), the researchers investigated the extent to which an instructional framework of combining motivation support and strategy instruction or Concept-Oriented Reading Instruction (CORI) influenced reading outcomes for third-grade children. In CORI, five motivational practices were integrated with six cognitive strategies for reading comprehension. In the first study, they (ibid.) compared this framework to an instructional framework emphasizing Strategy Instruction(henceforth SI), but not including motivation support. In the second study, they researchers compared CORI to SI and to a traditional instruction group (henceforth TI), and used additional measures of major constructs. In both studies, class-level analyses showed that students in CORI classrooms were higher than SI and/or TI students on measures of reading comprehension, reading motivation, and reading strategies.

In her “To Gloss or not to Gloss: An Investigation of Reading-comprehension Online”, Lomicka (1998) investigated the effects of multimedia reading software on reading comprehension. Specifically, her study aimed to explore how multimedia annotations influence the level of comprehension. Twelve college students enrolled in a second semester French course were instructed to think aloud during the reading of text

on the computer screen. Participants read the text under one of three conditions: full glossing, limited glossing, or no glossing. In addition, a tracker was set up in the software to record the amount and type of glosses, and length of time that each was consulted. The raw data clearly indicated an increase in the number of causal inferences generated for students who had access to full glossing. Computerized reading with full glossing might promote a deeper level of text comprehension. Finally, the researcher discussed some pedagogical suggestions for second language teaching and research.

In his study conducted on "The Effects of Reading Method on the Comprehension Performance of Saudi EFL Students", Alshumaimeri (2011) investigated the relative effects of different reading methods on the comprehension performance of Saudi EFL 10th grade male students. The scores of participants who read three comparable passages in three ways (oral, silent and sub vocalizing) were compared. The results of his work revealed significant difference between oral reading and sub-vocalization, and between oral reading and silent reading. Oral reading had the greatest effect on comprehension performance among the three reading methods examined. All groups reported that oral reading was the most preferred reading method with the majority of respondents feeling the style best supported comprehension. The feedbacks suggested that oral reading was preferred specifically because it helped in memorizing words and texts, concentration, and practicing and pronouncing words for real world encounters. It was recommended that second language teachers and students use all available reading methods in order to identify which method best serves their study objectives.

Reading in a second language (henceforth L2) can produce inefficient processing in otherwise proficient readers. Kern (1994) argued that mental translation during L2 reading may facilitate the generation and conservation of meaning by allowing the reader to represent portions of L2 text that exceed cognitive limits in a familiar, memory-efficient form. In this regard, Fifty-one intermediate-level French students in high, middle and low reading ability groups participated in think-aloud interviews while reading French texts. The relative frequency of translation use among these groups was compared at the beginning and end of a semester and was found to decrease with level of reading ability. The specific contexts in which students relied on translation were identified and functional benefits and strategic uses of translation were discussed.

In their pilot study, Dragsted and Hansen (2008) explored the coordination of comprehension and production within and across translation segments as identified by pauses. Using a combination of eye-tracking and keystroke logging, the researchers observed the reading and writing activities performed by eight participants and pauses registered in the translation process. They (ibid.) introduced the concept 'eye-key span', covering the time span between looking at a ST word and producing its TT equivalent, and presented data that suggested longer eye-key spans for problem words than for non-problem words and indicated that difficult words or phrases might attract attention long before they were translated. Furthermore, the researchers found that the majority of pause-defined segments contained both reading and writing events, but the read input rarely matched the written output, and coordination of comprehension and production did not appear to take place within pause-defined segment boundaries; rather, the pause seemed to signal a coordination effort, i.e. a transition from SL comprehension mode to TL production mode. Hence, the data

suggested that the automatic pause-based criterion for segmentation ought to be redefined.

As Gerver (1976) believes, theories of translation differ in the role assigned to the reformulation process. One view, the "horizontal" approach, considers that translation involves on-line searches for matches between linguistic entries in the two languages involved. The second view, the "vertical" approach, assumes that on-line reformulation does not take place while reading, i.e., translation involves giving lexical expression to the meaning extracted after comprehension (as cited in Macizo and Bajo, 2004). In this regard, four experiments conducted by Macizo and Bajo (2004) translators or bilinguals read sentences for repetition or for translation. When participants read for translation, on-line and global comprehension was affected by lexical ambiguity and memory load. Furthermore, cognate words located at the final portion of the sentences facilitated performance. However, the results of their studies showed that when participants were asked to understand and repeat the sentences, lexical ambiguity and the cognate status of the words did not have any effect. This pattern of results thus provided support for horizontal theories **of translation.**

The Think-Aloud Protocol Model Used in This Study

The model used in the present study was Block's (1992) model of Think-Aloud Protocol (henceforth TAP) provided with regards to reading comprehension. This is a comprehensive model of reading comprehension monitoring using think-aloud procedures. To begin with, Block (ibid.) divides strategies into local and general ones. Local strategies deal with the micro language-based bottom-up processes while the general strategies represent the cognitive, knowledge-based top-down processes. Thus, the model accounts for the interaction between local, language-based bottom-up processes and general, knowledge-based top-down processes. Block's (ibid.) Strategy Model is outlined below:

General strategies

These strategies include comprehension-gathering and comprehension monitoring strategies. Each strategy type listed below is followed by one or more examples in quotations.

Anticipate content: the reader predicts what content will occur in succeeding portions of texts. "I guess the story will be about how you go about talking to babies."

Recognize text structure: the reader discusses the purpose of information. "This is an example of what baby talk is."

Integrate information: the reader connects new information with previously stated content. "Oh, this connects with the sentence just before."

Question information in the text: the reader questions the significance or veracity of content. "Why is [baby talk among adults] usually limited to lovers?"

Interpret the text: the reader makes an inference, draws a conclusion, or forms a hypothesis about the content. "I think that's why some people are doing this thing."

Use general knowledge and associations: the readers in this study used their knowledge and experience (a) to explain, extend, and clarify content; (b) to evaluate the veracity of content, and (c) to react to content. "When they talk to a baby, they just sing little songs which brought to mind again my little nephew because when he hears sounds he just opens his eyes and he looks and he'll try to clap and sing with them."

Comment on behavior or process: the reader describes strategy use, and indicates a sense of accomplishment or frustration. The readers' responses reflect self-awareness. "I'm getting this feeling I always get when I read, like I lost a word."

Table 1. Some Demographic Information on the Strategies Applied by Iranian B.A Students of Translation based on Block's (1992) Model of TAP

	<i>Higher Level</i>					<i>Lower Level</i>						
	<i>1st pair</i>	<i>2nd pair</i>	<i>3rd pair</i>	<i>4th pair</i>	Total	<i>1st pair</i>	<i>2nd pair</i>	<i>3rd pair</i>	<i>4th pair</i>	Total		
<i>General Strategies</i>						71						52
1) Anticipate content	1	0	2	1	4	1	1	0	1	3		
2) Recognize text structure	0	0	0	0	0	0	1	0	0	1		
3) Integrate information	1	3	2	1	7	0	1	2	1			
4) Question information in the text	2	1	3	2	8	0	1	0	1	2		
5) Interpret the text	2	1	3	2	8	0	1	2	0	3		
6) Use general knowledge and associations	4	5	3	2	14	1	2	3	1	7		
7) Comment on behavior or process	0	1	1	0	2	0	1	0	0	1		
8) Monitor comprehension	2	3	0	1	6	4	3	1	2	10		
9) Correct behavior	4	1	3	2	10	4	2	1	2	9		
10) React to the text	5	2	3	2	12	4	7	3	2	16		
<i>Local Strategies</i>						242						164
11) Paraphrase	8	9	11	7	35	5	3	2	6	16		
12) Reread	12	11	13	9	45	7	6	5	8	26		
13) Question meaning of a clause or a sentence	12	14	9	11	46	10	12	8	11	41		
14) Question meaning of a word	15	18	12	16	61	9	8	12	14	43		
15) Solve vocabulary problems	15	14	9	17	55	13	10	9	6	38		

Monitor comprehension: the reader assessed his or her degree of understanding of the text. "Now I see what it means." "It doesn't seem like what I'm thinking of."

Correct behavior: the reader notices that an assumption, interpretation, or paraphrase is incorrect and changes that statement. This is a combination of the strategies of integration and monitoring, since the reader must both connect new information with old and evaluate understanding. "Now I read this part I understand ... I misunderstood in a way."

React to the text: the reader reacts emotionally to information in the text. "I love little babies."

Local strategies

These strategies deal with attempts to understand specific linguistic units. They include:

Paraphrase: the reader rephrases content using different words, but with the same sense. This strategy was used to aid understanding, to consolidate ideas, or to introduce a reaction. Paraphrases were classified as reasonably accurate (P+) or inaccurate (P-).

Reread: the reader rereads a portion of the text either aloud or silently. The use of this strategy usually indicated a lack of understanding; however, rereading may also have given the reader time to reflect on the content.

Question meaning of a clause or a sentence: the reader does not understand the meaning of a portion of the text. "What does this sentence mean?"

Question meaning of a word: the reader does not understand a particular word. "I don't understand this word."

Solve vocabulary problems: the reader uses context, a synonym, or some other word-solving behavior to understand a particular word. "Straight-forward grammar means easy grammar."

Method

Participants

Thirty-two undergraduate students of translation studying at Islamic Azad University, Shiraz Branch were chosen as the participants of the study. This number of students were chosen through simple random sampling; i.e. in a class containing some

forty students, a number of sixteen were chosen for higher level (seniors) and another one for lower level (sophomores). The underlying reason for choosing such students was that the latter group had just finished their reading-comprehension programs, while the former one had also been faced with other translation and linguistic courses.

To begin with, the total number of students was divided into two main levels of education, namely higher level vs. lower level. Each level was again sub-divided into four groups containing four students. What remained here was eight groups of students forming the final number of thirty-two.

Materials

An English text with a nearly high level of difficulty was given to the students in order to be translated into Persian. As the higher-leveled students had already passed some specific subjects, e.g., translation of literary, press, Islamic texts, etc., this text was chosen from the scientific genre, in order to minimize the role of interfering issues having an impact on the final outcome of the research. In translation of literary texts, for instance, the translator needs to take some other components into consideration, mostly known as extra-linguistic issues of translating. Concerning the choice of a suitable equivalence, one needs to take the connotative equivalence of a segment (e.g., a word, a phrase, a sentence, etc.) into account, rather than merely conveying its denotative or primary definition found in a dictionary (Newmark, 1986). Translation of sacred texts, on the other hand, involves the act of translator adhering to a literal, if not word-for-word translation, in order to be faithful to the orientations and text-realizations of the source language. It was assumed that choosing the scientific genre to be translated was a suitable and justified procedure to be worked on.

Data Collection Procedures

Using Block's (1992) model of think-aloud procedure, the students were asked to read the text in question and verbalize what they were thinking about while translating from English to Persian. The results were tape-recorded and ready to be analyzed.

Results

After collecting the desired data, they were categorized and placed within Block's (1992) model of reading comprehension. As discussed before, this model is based on think-aloud procedures, where the translators (i.e., students) are asked to verbalize what they are thinking about, what comes to their mind, etc. (Venuti, 2004). By verbalizing their thoughts, it is assumed that one would be close to the systematic steps taken during the process of translation. Table 1.gives a demographic view on the collected data.

On elaborating Table 1., it should be mentioned that each of the main two types of strategies, namely 'General' vs. 'Local' were categorized separately. The general strategy consists of ten sub-categories, while the local one includes five. As discussed before, the total number of students (32) were divided into two main groups based on their level of education. These included 'higher' vs. 'lower' levels. Then, each and every level was given four groups of students, each containing four students.

To begin with, the tape-recorded data were analyzed and the frequencies of the strategies used by the translators (whether general or local strategies) were counted out. This was shown in Table 1. Then, concerning the statistical differences between the frequencies of the strategies used by such translators, a Chi-Square test was carried out. The findings of the test concerning general strategies among the higher vs. lower level of students are shown in Table 2., as follows:

Table 2. Statistical Information About the General Strategies Applied by Both Higher Vs. Lower Level of Students

General Strategies			
	Observed N	Expected N	Residual
Higher Level	71	61.5	9.5
Lower Level	52	61.5	-9.5
Total	123		

As shown in Table 2., the total number of the general strategies carried out by the participants were 71 by higher and 52 by lower levels. In search for the significance of the differences observed, the Chi-Square procedure was used, the result of which is shown in Table 3., as follows:

Table 3. The Results of the Chi-Square Test on the Significance of the Differences among the frequencies of the General Strategies Applied by the Participants of Both Higher and Lower Levels

	General Strategies
Chi-Square	2.935 ^a
df	1
Asymp. Sig.	.087

Concerning the level of significance (Asymp. Sig. > .05), the results of the Chi-Square test revealed that there were no statistically significant differences among the frequencies of the general strategies carried out by higher vs. lower level of students.

In line, Table 4.provides some demographic and statistical information on the local strategies applied by both higher and lower level of students.

Table 4. Statistical Information about the Local Strategies Applied by Both Higher Vs. Lower Level of Students

Local Strategies			
	Observed N	Expected N	Residual
Higher Level	242	203.0	39.0
Lower Level	164	203.0	-39.0
Total	406		

The total number of local strategies applied by higher level of students held the frequency of 242, while it was 164 for lower level. The results of the Chi-Square test revealed that there were

statistically significant differences (Asymp. Sig. < .0005), among the frequencies of the local strategies used by higher vs. lower level of students, which is presented in Table 5., as follows:

Table 5. The Results of the Chi-Square Test on the Significance of the Differences Among the frequencies of the local Strategies Applied by the Participants of Both Higher and Lower Levels

	Local Strategies
Chi-Square	14.985 ^a
df	1
Asymp. Sig.	.000

Discussion

The final results of the tests revealed that there were no statistically significant differences among the frequencies of the general strategies applied by higher level of students, as compared to lower levels. However, the results were different as related to local strategies. In other words, there were statistically significant differences among the frequencies of such strategies. Thus the first research hypothesis concerning the differences among the frequencies of the strategies applied by the participants was partly supported.

Concerning the second research hypothesis, as related to the nature of those strategies carried out by the participants, the results supported that fact, too; as there were statistically significant differences among the total frequencies of the general vs. local strategies applied by the participants of both higher and lower level of education. These are illustrated in Figure 1.:

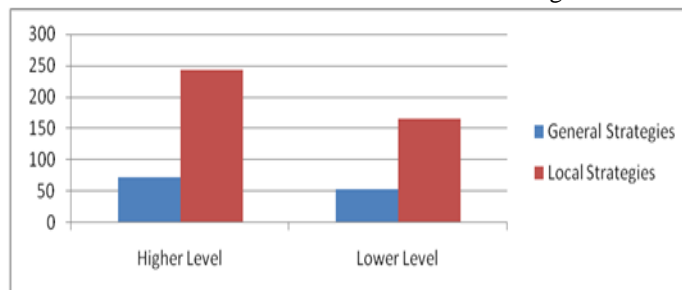


Figure 1. Demographic overview of the Results Obtained

The results of the present study was also in line with the findings of the work carried out by Atari and Abu Radwan (2009), except that the differences among the general strategies were not supported in the present work.

In their "Increasing Reading Comprehension and Engagement Through Concept-Oriented Reading Instruction", Guthrie et al. (2004) obtained results with high similarities as compared to the findings of the present work. However, their (ibid.) study was based on a model of TAP instructed to the participants formerly.

Complementing the findings that these cognitive and metacognitive strategies correlate with comprehension, instructional research show that strategy training can increase students' competence in using the strategy, awareness of the strategy, and comprehension of text for which the strategy was intended (National Reading Panel, 2000). Furthermore, controlled studies of single strategies have shown that strategy instruction is effective for students with learning disabilities, as well as for regularly developing students, in the elementary grades. Reviewing sixteen studies of teaching strategies for expository text to learning disabled students, Gersten, Fuchs, Williams, and Baker (2001) observed moderate positive effects on reading comprehension for teacher modeling and monitoring of strategy use.

Conclusion

As Newmark (1986) points out, translation is not the mere replacements of the elements of the source text into the target text. It is rather a complicated process involving several issues to be observed and considered. Only through all these systematic steps taken during the process of translation, an acceptable piece of translated text would be achieved (Larson, 1998).

As for the present study, there were fifteen possible strategies pointed out by Block (1992). These were divided into general vs. local ones, each containing some sub-classes. The frequencies of usage over these types of strategies revealed that local strategies were used more than the general ones by both higher and lower levels of students. These included paraphrasing, re-reading, questioning the meaning of a word, a phrase, a clause or a sentence which mostly led into the act of solving the problem faced while translating. On the other hand, the frequencies of the general strategies such as recognizing the text structure, anticipating the plot of the translation, using general knowledge and associations held a lower level of frequency.

Getting more familiar with the steps involved during the process of translation (Block, 1992), one could be aware of the reading comprehension strategies applied by most of the translators. Thus, the results of the present work are assumed to act as a great tool to the ones working in the fields of education, English language teaching, translation, etc.

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