Effect of prosody awareness training on the quality of consecutive interpreting between English and Farsi

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Chapter three

Effects of teaching prosody awareness on consecutive interpreting from English into Farsi

Abstract

This study investigates the effects of prosodic feature awareness training on the quality of interpreting by interpreter trainees. Two groups of student interpreters were formed. Participants were assigned to groups at random, but with equal division between genders (seven males in each group). The control group was then taught interpreting skills by the routine curriculum, while the other, experimental, group, spent part of the time instead on theoretical explanation and practical exercises emphasizing prosodic differences between Farsi and English. Three raters assessed the quality of the interpreter trainees' performance in a post-test in terms of accuracy, omissions, overall coherence, grammar, expression, word choice, terminology, accentedness, pace and voice. The results show that prosodic feature awareness training did have a statistically significant effect on the quality measures: the overall assessment of the experimental group was 14 points better (on a scale between 0 and 100) than that of the control group. Moreover, the difference was larger for the phonetic/prosodic quality scales (accentedness, pace, voice) than for the other scales. These results have implications for designers of curricula for training interpreters, material producers and all who are involved in foreign-language study and pedagogy.

Keywords: prosody; awareness training; interpreting studies; linguistic stress; English; Farsi

3.1 Introduction[1]

Prosody is the ensemble of properties of speech that cannot be understood from the mere linear sequence of segments (e.g., Nooteboom 1997, Van Heuven 2017). As a first approximation, prosody includes word and sentence stress, word tones, phrasing (by inserting pauses or signaling breaks between phrases, sentences and paragraphs), and intonation (speech melody). Prosody helps listeners to process and understand the incoming message. Therefore, it has an important role in speech communication (e.g., Cutler 2012, Mary 2012). Phonological awareness is the awareness of, and the ability to manipulate, the sound structure of language (Miller & Schwanenflugel 2006). By implication, prosodic feature awareness would then be the conscious capability on the part of a language user to perceive, interpret and manipulate the prosody of a language, i.e. its temporal and melodic properties. Tunmer and Herriman (1984) as well as Tunmer, Herriman and Nesdale (1988) have suggested that prosodic feature awareness develops later than awareness of properties of vowels and consonants. Shankweiler and Crain (1986) argue that conscious met linguistic awareness of phonemic structure (i.e. vowels, consonants and sequences of such segments that make up syllables) develops as a by-product of language acquisition. Thompson, Tunmer and Nicholson (1993) consider language an object of thought rather than the natural result of language acquisition. Instead, they claim that the processing of one's second language is contingent on conscious awareness of explicitly learned differences between the native and the second or foreign language. Therefore, prosodic feature awareness is not an automatic result of (second) language learning and can only be acquired through formal instruction (Huang, Lin & Su 2004).

Jackson and O'Brien (2011) claim that the relationships between prosody, second language speech production and second language comprehension are understudied and demand more investigation. Systematic studies should be done to learn how interpreters may exploit the relationships between prosody and meaning when decoding messages in the source language and encoding the same message in the target language. Such studies would also help second language learners in general. Therefore, the present experimental study investigates the effects of explicit on prosodic feature awareness training of interpreter trainees on the quality of their interpreting performance.

[1] This chapter will appear as Yenkimaleki & Van Heuven (2017). The effect of teaching prosody awareness on interpreting performance: An experimental study of consecutive interpreting from English into Farsi**.** *Perspectives: Studies in Translatology*, 15(1) (in press; DOI 10.1080/0907676X. 2017.1315824). It is an extended version of Yenkimaleki & Van Heuven (2013). Prosodic feature awareness training in interpreting: An experimental study. In L. Gómez Chova, A. López Martínez & I. Candel Torres (Eds.), *Proceedings of the 6th International Conference on Education, Research and Innovation, November 18-20, 2013, Seville, Spain*, 4179-4188.

3.2 Phonetics and interpreting

Translating (of written texts) and interpreting (of spoken text) are complex linguistic skills which are used by a bilingual intermediary when two (groups of) languages users A and B who do not understand each others' language, want to communicate (e.g., Massey, 2007). The go-between takes written or spoken text in the source language A as input and outputs a faithful semantic equivalent of the decoded message in the target language B (e.g., Nolan, 2012). In the past, there has been a tendency to perceive interpreting as an alternative form of translating, but from the second half of the 20th century differentiation between the two areas has become necessary (Massey, 2007, p. 1). Translators may avail themselves of a wide range of information sources, such as dictionaries, terminology lists and encyclopedias, to find the best possible translation equivalents. Interpreters, on the other hand, generally have to deliver their rendition of the input speech on the spot, with minimal delay. Although interpreters can do background research in preparation of an interpreting task, there is no time to consult any resources once the interpreting has begun.

Prosodic sensitivity or awareness should be directed to three important elements: (i) lexical stress, i.e. the location of the syllable in a word that receives emphasis, (ii) intonation, i.e. the pattern of pitch rises and falls that is used to divide continuous speech into sentences and phrases and to mark specific units within those phrases as communicatively important, and (iii) temporal organization by which pauses (often reinforced by melodic means) are inserted between groups of words – roughly fulfilling the function of punctuation marks in a written text (e.g., Whalley & Hansen 2006).

Derwing, Munro and Wiebe (1998) have shown that awareness training led to better intelligibility of second-language learners who had instruction emphasizing prosodic feature of stress. Later, those second-language learners were found to transfer their acquired perceptual skills to spontaneous L2 speech production as well (Field 2005). Interpreters may be taught explicitly how to take advantage of prosodic properties of the (foreign) source language so as to exploit redundancies (i.e. complementary and compensatory information) in the input speech and resolve ambiguous of utterances (Huber 2005). In this way prosodic feature awareness training can be beneficial to interpreters (and interpreter trainees) both in speech production and speech recognition (e.g., Mahjani 2003). Studies of the efficacy of such training programs may contribute to theories of interpreter training and help us understand the interactions between prosodic structure and other linguistic or paralinguistic domains (syntax, semantics, pragmatics…). Therefore, studying and explicitly comparing different languages with different prosodic systems may help us understand the importance of prosody awareness and develop better teaching methods for training interpreters.

3.3 Prosodic consciousness in message perception

The impact of prosody on the development of speech is widely recognized (see e.g., Maddox & Conners 2009). Prosodic features are among the first to be picked by infants acquiring their first language. In fact, the acquisition of prosody may begin before birth, since the unborn child is exposed *in utero* to the low-frequency sounds produced by the

mother, which carry the information on the melody and rhythm of the mother's speech. Appealing to a first-in-last-out principle of learning and unlearning, it is often held that adult second-language learners relatively soon acquire an adequate perceptual representation and pronunciation of the segments of the foreign language but experience great difficulties in replacing the prosodic properties of the L1 by those of the L2 (Wanner & Gleitman 1982, Whalley & Hansen 2006). Prosody, as was argued in the previous sections, plays an instrumental role in the decoding and encoding of meaning. Segmentation of continuous speech into syllables, words and phrases, informing syntactic structure, and emphasizing content words and other salient information are some of the functions of prosody that facilitate the processing of speech (Whalley & Hansen 2006). For successful decoding of input speech and encoding speech output in the non-native language the L2 learner may benefit from an explicit comparison of the prosodic properties of his native language and those of the L2. Moreover, the importance of prosody for an interpreter in bilingual communication between two parties A and B would be the same as in monolingual communication (Ahrens 2004). Since the prosodic features which exist in the source language contribute to the message, they should be adequately expressed in the target language as well.

3.4 Stress

By stress we mean the property of a syllable to be more prominent than other syllables within the same word. In most languages that have stress, the location of the stressed syllable is a fixed property, which can be derived by the application of a simple rule or, when the system is more complex, can be looked up in a pronunciation dictionary. Accent, in contrast to stress, is a property of a word which makes it prominent within a larger prosodic domain (e.g., a phrase or utterance). In most languages, including those which we study in the present paper, it is difficult to predict which words will be accented and which ones will not; the choice ultimately depends on the communicative intentions of the speaker (see e.g., Bolinger's (1972) article 'Accent is predictable if you're a mind reader'). Prosody training, when applied to stress and accent, should make the learner aware, first of all, of the differences between the L1 and the L2 in regularities that determine which syllable is stressed at the word level and which words are accented at the sentence level. For instance, the L1 of the participants in the present study, Farsi, is a language that typically stresses the penultimate syllable in the word. The stress system of English is much more complex, with rules that take the weight of syllables (as determined by the presence of long vowels, diphthongs and coda consonants) into account (e.g., Kager 1989). In practice this means that Farsi learners of English cannot routinely stress the penultimate syllable in English but should learn the stress pattern for each English word separately and store it in their bilingual mental lexicon. However, stress and accent placement do not only differ across languages in phonological terms, i.e., of the rules and mechanisms that govern their location in the abstract linguistic structure of sentences. They also differ in phonetic terms. Stressed syllables may differ from unstressed syllables in loudness (i.e., acoustic intensity and spectral slope), duration, spectral expansion, and the size and segmental alignment of pitch changes (e.g., Lehiste 1970, Van Heuven 2014). Different languages may make different selections from these correlates or weigh them in different ways. For instance, Indian speakers of English execute a very late rise-fall pitch movement on the stressed

syllable of an accented word (as is normally done in Hindi), which is perceived by British-English listeners as stress on the next syllable, so that the word *character* (with stress on the first syllable) is perceived as *director* (with stress perceived and reproduced on the second syllable, Bansal 1966, quoted by Cutler 1983: 97).

Awareness of prosodic differences between native and foreign language should pay off when interpreting text from the L2 into the L1. In this process, explicit knowledge of the L2 prosody would help the interpreter process the incoming speech. In normal speech processing, under optimal listening conditions, prosody is redundant vis-à-vis the segmental information. This is the reason why most conventional orthographies do not explicitly mark word prosody. Stress marks are written in irregularly stressed words in Spanish but not in the spelling systems of other Western languages, including English. Sentence stresses ('accents') are never indicated in spelling, and only the deeper prosodic boundaries are expressed. Question and exclamation marks code meanings rather than specific melodies, and typically 'question' or 'exclamation' is coded in parallel by lexico-syntactic means (question words, word order). Prosody will assume a more important role, however, when segmental information is unreliable – due to a noisy communication channel. Moreover, even though prosody may supply less information than the segments do (sentences cannot be understood from prosodic information only, see e.g., Blesser 1972, Van Heuven 2017), word recognition and speech understanding are severely compromised if incorrect prosody is added to segmentally imperfect speech (e.g., Wingfield 1975, Cutler 1983, 2012, Van Heuven, 1985, 2008, Wang et al. 2011). Wingfield (1975), for instance, showed that prosodic breaks that do not match syntactic breaks result in incorrect sentence understanding, while Van Heuven (1985) found that one out of every two incorrectly Dutch stressed words were not recognized in poor quality synthetic speech – even though the same segmentally imperfect words were easily recognized when correctly stressed.

Listening to speech in a non-native language is inherently noisy, since the linguistic code of the input speech does not match the deep-rooted expectation pattern of the non-native listener (Cutler 2012). It is our hypothesis that drawing the non-native listener's attention to the specific characteristics of the L2 prosody (for instance its stress system), by intensive exposure to words with unexpected stress patterns and/or explicitly pointing out prosodic differences between in the L1 and L2, will help the non-native listener process the L2 input speech. We further assume that knowing how to exploit the redundancies imparted by word and sentence prosody in the L2 input pays off especially when the speech processing task is aggravated by the time pressure and heavy burden on working memory which is unavoidable in interpreting tasks.

Many researchers have emphasized the importance of awareness and 'consciousness raising' for second language learning (e.g., Schmidt 1990). Mainstream cognitive psychologists consider awareness a fundamental pre-condition to learning and even claim that that learning is impossible without conscious awareness (Brewer 1974, Lewis & Anderson 1985, Dawson & Schell 1987). In the field of foreign-language learning these views are reflected by, for instance, Bialystok (1978), who proposed a theoretical framework in which consciousness knowledge plays a key role. In a similar vein, Rutherford and Sharwood Smith (1985) asserted that drawing the learner's conscious

attention to the formal properties of the foreign language can be advantageous to second language learning.

It follows from the above that correct pronunciation and correct use of prosody is important for non-native speakers addressing a native audience. To be true, native listening is extremely robust and can deal with highly deficient speech input. However, when both the segmental information deviates by more than a critical amount from the native norm and the word and sentence prosody is defective, speech recognition and understanding are bound to break down (Cutler 2012). The importance of pronunciation in foreign language learning has been widely known by researchers and language instructors (e.g., Van Heuven 1986, Derwing 2003, Hişmanoğlu 2006). According to Wang and Lu (2011) the urgency of pronunciation teaching has increased with the progress of economic globalization, which demands communication between people from different countries with different native languages and cultures.

The present study addresses the importance of awareness of the stress system of English for Iranian interpreter trainees. In the experiment, English is the non-native source language while Farsi (Modern Persian) is the native target language. This is the default direction of the interpreting task (also called *recto* or straight interpreting). In later experiments, we will also study the effects of prosody awareness training on the quality of the production of non-native speech (i.e., English) when interpreting from native Farsi into English (so-called *verso* or inverse interpreting).

To sum up, then, we will experimentally test the claim that prosody awareness training, at the word and sentence level, will lead to improved performance by Iranian interpreter trainees when asked to interpret spoken English into Farsi.

3.5 Method

3.5.1 Participants

The participants of this study were 30 second-year students (14 males) who were chosen randomly out of 64 students who were studying BA in English Translation and Interpreting at the State University of Arak, Iran. They were then divided into two classes of 15 (7 males in each group) one of which would serve as the experimental group and the other as the control group. All participants, aged between 20 and 22, were native speakers of Farsi and took part in all training sessions during the semester.

3.5.2 Procedures

Before any instruction all participants took a pre-test of general English proficiency. This was done in order to ascertain that the two groups were equal in terms of their command of English at the beginning of the study. Obviously, interpreting from foreign English into native Farsi can only be done properly to the extent that the input language is understood. If the interpreter does not understand a word of the input language, there will be no meaningful output. The better the input is understood, the

better (*ceteris paribus*) the output. The test battery used was the standard Longman's TOEFL English proficiency test (paper-based version, http://www.ets.org/toefl/pbt/about/content/), with separate modules testing the learner's skills as follows:

(1) Listening comprehension: 30 questions about short conversations, 8 questions about longer conversations, 12 questions about lectures or talks (scores range between 31 and 68 points)
(2) Reading comprehension: 50 questions about reading passages (scores between 31 and 67 points)
(3) Structure and written expression: 15 exercises of completing sentences correctly and 25 exercises of identifying errors (scores between 0 and 6 points)
(4) Writing: one essay with a length of 250 to 300 words (scores between 31 and 68 points).

The score test takers receive on the Listening, Reading and Structure parts of the TOEFL test is not the percentage of correct answers. The score is converted to take into account the fact that some tests are more difficult than others. The converted scores correct these differences. Therefore, the converted score is a more accurate reflection of the ability than the raw score is. The final test score on the paper-based version of the TOEFL test ranges between 310 and 677. In the results section we report the raw scores on the four components as well as the overall TOEFL score (after weighting and conversion).

The control group received routine instruction in interpreting, i.e., the routine curriculum and the syllabus which has been used in the English Translating and Interpreting Department of Arak State University. For this group, the techniques of interpreting, different aspects of interpreting, and types of interpreting were normally instructed and practiced. The experimental group spent 20 minutes less time per session on the routine curriculum and instead received awareness training on prosodic features of English (stress at word and at sentence level). Altogether each group took part in 18 sessions (two hours per session and one session every week) for a total of 36 hours of instruction. In both classes authentic extracts from spoken English were presented to the students, who then interpreted the extracts consecutively.

Formative quizzes administered from time to time during sessions of program in order to provide feedback on progress to both students and instructors. The same post-test was administered to both control and experimental groups alike to measure the quality of (consecutive) interpreting at the end of the treatment (see a sample of this test in Appendix 1). The test included ten 30-second extracts to be interpreted with two-minute intervals between extracts. The recorded extracts used in the instructional sessions were authentic English. They included news, political discussions and social interviews. In the choice of extracts careful attention was paid to sentences in which stress at the word and/or sentence level clearly affected meaning, as in e.g.: *the market is an institution in which wealth acquires power, wealth controls what gets produced and who gets it,* the word *wealth* was accented the first time it was mentioned but was de-accented the second time to indicate that the listener should not look for a new referent (for more information, see the three texts which were evaluated by the raters in Appendix 1, pp. 52–88).

Student-interpreters participated in the final test in a language laboratory in the presence of a classroom instructor. Students were seated in sound-proofed half-open cubicles which attenuated ambient noise well enough to yield clean recordings. They listened to the source texts being played to them over a loudspeaker at a comfortable listening level. The participants took note of whatever they heard in the extracts and wrote down their perception of the message. After every 30-second fragment they were allowed two minutes to consult their notes and to record an interpretation of the source text in Farsi. Recordings were made directly onto a digital computer through individual, table-mounted microphones.

Three out of the ten recorded texts per participant (see above) were then evaluated by three expert judges of interpreting quality. These were three senior colleagues in the Department of English in the Humanities Faculty of Tafresh University, Iran, i.e., a different university than the one that hosted the experiment. All three judges were experienced instructors in interpreting between English and Farsi, and did not know any of the students whose performance they were asked to judge. Evaluation criteria (see Table 3.1) were explained beforehand (based on Sawyer 2004). Judges rated the students' performance independently of each other in different rooms and at different times. The order in which the 30 student interpreters were rated was the same for all judges; subjects in the control group were presented before any of the students in the experimental group were rated. Raters were aware of this order. The three fragments selected for each subject were presented in immediate succession. The materials were played back over small loudspeakers without interruptions or repetitions; judges noted down their marks (one for each criterion) on paper evaluation sheets as the fragments progressed. Note that the criteria were weighted differently, as indicated in Table 3.1, as the maximum number of score points that the rater could award differed between scales.

Table 3.1. Ten evaluation criteria subdivided into three domains used in the quality judgment of interpreting performance. The numbers are the maximum score that can be awarded for the criterion at hand. The overall maximum score equals 100 points. After Sawyer (2004).

Meaning		**Language use**		**Presentation**	
Accuracy	20	Grammar	7	Pace	10
Omissions	15	Expression	7	Voice	10
Overall coherence	10	Word choice	7		
		Terminology	7		
		Accent	7		

The ten evaluation criteria are defined and motivated as follows:

(1) *Accuracy:* Interpreters should be faithful all the time to the meaning of source language. It means than an optimal and complete message should be transferred to the target language such that the content and intent of the source language should be preserved without omission or distortion. Accuracy of interpretation should be

a primary concern for interpreters. Discrepancies in meaning and intention between source and target text are not acceptable.

(2) *Omission:* Jones (2014) pointed out that interpreters in some situations have insufficient time to render exact and complete messages. In such situations interpreters may omit part of the source text and yet deliver a coherent message to the audience. To do so, interpreters may intentionally omit part of the source language and concentrate on transferring the gist of the message. As a consequence, some omissions are considered errors but in certain complicated situations they are unavoidable, e.g., when the interpreter suffers from cognitive overload. In this study omissions were not counted against the interpreter as long as the interpretation preserved the content and intent of the source language; if not, they were scored as errors.

(3) *Overall coherence:* Coherence is the extent to which the interpreter's output is meaningful and purposeful. Message coherence is a key aspect in interpretation, which includes conceptual connectedness, evaluative and dialogical consistency and textual relatedness.

(4) *Grammar:* In this study the attempt was made to evaluate the speech production of the participants observing the standard structural rules of English.

(5) *Expression:* Utterances should be appropriate regarding formality and informality with the target audience. Moreover, the utterances should be a manifestation of appropriate use of target language.

(6) *Word choice:* The choice of words in the target language should be done according to the genre of source language. Moreover, in interpreting the expectations of the audience (in relation to the social class they belong to) should be taken into account as well.

(7) *Terminology:* Interpreters should be familiar with technical terms of the subject matter that they are interpreting. In this study, the attempt was made to see to what extent the participants were choosing the technical terms when transferring the message.

(8) *Accent***:** Since the interpreter's intelligibility will depend on the quality of his/her pronunciation of the target language, the strength of the interpreter's accent was judged (in the case of interpreting into the interpreter's native language, this criterion applied more or less vacuously – and will vary only in so far as a strong regional accent would compromise the interpreter's intelligibility).

(9) *Pace:* It is widely recognized that a rate of delivery of speech between 100 and 120 words per minute (wpm) is optimal for English speech (e.g., Gerver 1969, Seleskovitch 1978, Lederer 1981). In the present study, an intuitive judgment was made of how optimal the interpreter's rate of delivery was, i.e., neither very slow nor so fast that intelligibility would be compromised.

(10) *Voice:* Generally an interpreter with pleasant and relaxed voice is more appreciated than one with a strained or nervous voice. An attempt was therefore made to judge globally to what extent the voice of the participants is appropriate for transferring the message.

3.6 Results

The results of the experiment will be presented in four sections. In § 3.6.1 we will review the basic outcome of the experiment, and the test to see whether indeed the prosody awareness training makes a significant contribution to the students' performance as consecutive interpreters. In § 3.6.3 we will analyze the effects of the awareness training in more detail. Since the training aims at improving the students' understanding of prosodic differences between English and Farsi, we will separately analyze each component of the post-test and test the hypothesis that components that specifically address prosodic skills in the interpreting performance should benefit more from the awareness training than other components. Finally, in § 3.6.3 we will attempt to find a statistical model that optimally predicts the quality of the student's performance as a consecutive interpreter from his/her component scores on the pre-test and the training program taken (i.e., with or without special emphasis on prosody).

3.6.1 Effect of training program

Table 3.2 summarizes the raw component scores of the proficiency test of the control group (upper part of table) and of the experimental group (bottom part), i.e., before conversion to standard scores.

As a statistical precaution, one-sample Kolmogorov-Smirnov (KS) tests were run to ascertain that the overall TOEFL proficiency scores were distributed both normally and uniformly. The results show that the distribution does not deviate significantly from normalcy, $z = .527$ ($p = .944$, two-tailed) nor from uniformity, $z = .803$ ($p = .539$, two-tailed). Moreover, a two-sample KS test showed that the shape of the distribution of the TOEFL scores did not significantly differ between the experimental and control group, $z = .913$ ($p = .375$). It was decided that standard parametric statistics can be safely used to analyze the data.

A t-test for unrelated samples then shows that none of the small differences on the pre-test and its components between the experimental and control group is significant, $t(28) = .415$ ($p = .682$) for Listening comprehension, $t(28) = 1.087$ ($p = .288$) for Structure and written expression, $t(28) = 1.421$ ($p = .168$) for Reading comprehension and $t(28) = -1.029$ ($p = .312$) for the overall TOEFL proficiency score.

From the ten interpreted texts recorded by each student, three were selected for further analysis. The same three texts were used for all 30 participants. These were the third, fourth and fifth fragments presented. It was felt that fragments 1 and 2 should be considered practice material, and that later fragments (6 through 10) might unduly suffer from fatigue on the part of the participants. The three fragments were presented to three expert raters, including the researcher, who rated the participants' performance on the post-test. The results of their rating are presented in Table 3.2 (control group in top half of table, experimental group in bottom half).[2]

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[2] I thank my colleagues at Tafresh University, Dr. Ahmadi (RA) and Dr. Majid (RM) for their willingness to act as raters in the experiment. The third rater was the present author (RY).

Table 3.2. Raw component scores on TOEFL proficiency test obtained by control (upper part) and experimental groups (bottom part). The rightmost column contains the standardized overall TOEFL scores computed from the component scores. Within each group subjects are listed in descending order of TOEFL score (TWE: stands for test of written English).

Nr.	Student	Gender	List. Comp	Structure and Writing	Reading Comp	TWE	TOEFL score
Control Group							
1.	SaM	Female	63	58	58	5.00	610.00
2.	PoP	Female	60	57	56	4.67	586.67
3.	DaD	Male	54	57	57	4.33	563.33
4.	EiM	Male	57	55	53	4.33	553.33
5.	KhR	Female	54	56	53	4.00	540.00
6.	ZaN	Female	53	54	52	4.00	530.00
7.	ElM	Female	52	53	50	4.33	513.33
8.	AtH	Female	52	52	50	4.00	510.00
9.	ReR	Male	51	52	50	3.67	506.67
10.	AlA	Male	50	52	50	3.33	503.33
11.	MaN	Male	49	52	50	3.00	500.00
12.	LeK	Female	49	51	49	3.00	490.00
13.	JaR	Male	48	49	49	3.33	473.33
14.	AsH	Male	47	48	49	2.67	446.67
15.	NeF	Female	47	48	49	2.67	446.67
Mean			52.2	53.1	51.7	3.76	518
SD			4.2	3.4	3.20	.73	46.52
Experimental group							
1.	AlR	Male	62	60	58	5.33	613.33
2.	MaH	Female	60	58	56	5.33	603.33
3.	RaM	Male	56	57	56	4.67	566.67
4.	MoH	Male	55	57	56	4.33	563.33
5.	NaN	Female	54	56	54	4.33	553.33
6.	SaK	Female	54	56	54	4.33	553.33
7.	ArA	Male	53	56	54	4.00	550.00
8.	ZoM	Female	53	56	54	4.00	550.00
9.	PaN	Female	52	54	56	3.67	546.67
10.	BaN	Male	52	51	54	3.33	523.33
11.	KiK	Female	51	54	51	3.67	516.67
12.	MaR	Female	50	51	49	3.33	493.33
13.	NaH	Male	49	50	49	3.00	480.00
14.	HaM	Male	48	50	49	2.67	476.67
15.	TaB	Female	47	48	49	2.67	446.67
Mean			53.1	54.3	53.3	3.91	535.77
SD			4.1	3.5	3.1	.84	47.58

Table 3.3. Post-test scores (on a scale from 0 to 100 = best) given by three raters for individual students in control group (upper part) and experimental group (bottom part). The rightmost column contains the mean of the three ratings. Subjects are ordered as in Table 3.2.

No.	Student	RY	RA	RM	Mean score
Control group					
1.	SaM	84	83	85	84.0
2.	DaD	76	78	77	77.0
3.	PoP	81	80	79	80.0
4.	KkR	66	65	64	65.0
5.	EiM	69	70	68	69.0
6.	ZaN	63	64	62	63.0
7.	ElM	62	60	61	61.0
8.	ReR	54	53	55	54.0
9.	AtH	57	58	56	57.0
10.	AlA	52	50	51	51.0
11.	LeK	43	42	44	43.0
12.	MaN	46	48	47	47.0
13.	JaR	40	42	41	41.0
14.	AsH	38	36	37	37.0
15.	NeF	33	32	34	33.0
	Mean	57.6	57.4	57.4	57.5
	SD	15.9	16.0	15.5	15.8
Experimental group					
1.	AlR	92	93	97	94
2.	MaH	93	91	92	92
3.	NaN	81	80	82	81
4.	ArA	80	78	82	80
5.	RaM	88	90	89	89
6.	MoH	73	73	76	74
7.	SaK	84	86	85	85
8.	ZoM	70	73	70	71
9.	PaN	69	71	70	70
10.	KiK	61	62	60	61
11.	BaN	63	62	64	63
12.	MaR	58	60	59	59
13.	HaM	51	50	49	50
14.	NaH	53	55	54	54
15.	TaB	47	46	48	47
	Mean	70.9	71.3	71.8	71.3
	SD	15.1	15.2	15.8	15.3

To see whether the post-test scores by the three different raters are sufficiently reliable the inter-rater reliability was computed (using the SPSS Reliability subprogram) in terms of the intraclass correlation coefficients. This requires considering the way raters were selected, importance of specific raters, and the number of raters. Here, three randomly selected raters judged all participants on the same criterion. No individual rater was considered to be more or less important than the others. Absolute agreement and degree of consistency varied minimally. Therefore, a two-way random model was employed. In addition, because the reliability of the mean of all raters is aimed at, the intraclass correlation was computed as an overall measure of interrater consistency (this coefficient is identical to Cronbach's alpha). The intraclass correlation amounted to .997, which indicates a very high degree of agreement between the three raters. On the basis of this result, the mean rating score (right-most column in Table 3.3) is considered a valid estimate of the students' performance as consecutive interpreters.

In order to compare the results of both the control and the experimental groups and to know whether the difference in the means truly stems from the awareness training in stress at the word and at sentence level in interpreting taken by the experimental group (i.e., treatment), the t-test was employed. The independent-samples t-test was chosen to compare the means for the two groups of participants. Ideally, for this test, the subjects should be randomly assigned to two groups, so that any difference in response is due to the treatment and not to other factors, which conditions were clearly met in the present case (see above). Before running the t-test, the final test scores were submitted to the two-samples KS test to check the groups' final test results for normalcy, uniformity and homogeneity. It is concluded that the final scores (i.e., the mean interpreting performance ratings) of both groups are sufficiently homogeneous, so that t-tests (and other parametric tests) can be safely used, $z = 1.095$ ($p = .181$, two tailed).

Figure 3.1 plots the relationship between the pre-test (TOEFL test) and post-test (mean rating) scores of the individual students, with separate symbols for participants in the experimental group (filled symbols) and in the control group (open symbols).

The overall correlation between the pre-test and post-test scores was $r = .930$ ($N = 30$, $p < .001$). Correlations computed for each group separately are somewhat better, $r = .964$ for the control group and $r = .943$ for the experimental group ($N = 15$, $p < .001$ in both cases). The reason, obviously, why the correlation for separate groups are better than for the overall sample is that there is a systematic difference between them. Figure 3.1 shows that the performance on the post-test by the experimental group tends to be better than that achieved by the control group. This is visualized by the regressions lines drawn in Figure 3.1 for each group. The regression line for the experimental group is some 10 percentage points higher than that of the control group. This illustrates the point that the two groups do not differ in terms of their pre-test performance; the difference is in the post-test only, with better performance for the experimental group.

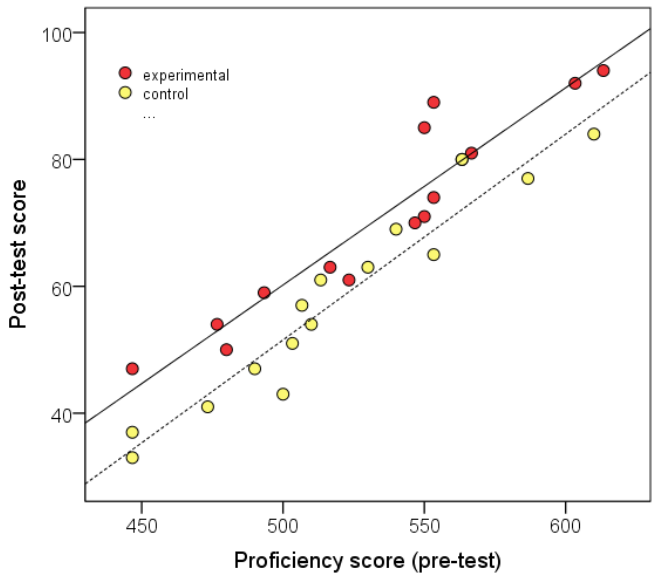

Figure 3.1. Post-test score plotted against the pre-test TOEFL score for each of 30 subjects. Members of the experimental group are indicated by dark/red symbols, members of the control group by light/yellow symbols. Linear regression lines have been drawn for each group separately.

An independent-samples t-test on the post-test scores (mean interpreting performance rating) for experimental and control groups shows that the advantage of the experimental group (71.3) over the control group (57.5) is highly significant, $t(28) = 2.440$ ($p = .001$, one-tailed).

The sharpest test of the effect of the prosodic awareness training can be obtained by determining for each student the difference between his/her position (relative to the peer group) in the pre-test and the post-test. In order to make such a comparison possible, the raw scores on the pre-test and of the post-test had to be converted to standard scores, by applying the z-transformation (i.e., by subtracting from each individual score the group mean score and then dividing the difference by the standard deviation). The resulting z-scores (with a mean of 0 and a standard deviation of unity for both the pre-test and the post-test) can be directly compared. The effect of the intervention (the training programs for the experimental and the control groups) can then be determined by computing the difference between the z-score on the post-test minus that of the pre-test. A positive difference in z-scores will indicate that the intervention was beneficial. The hypothesis is that the intervention will be more beneficial to the experimental group than to the control group. The effect will be stronger, and statistically more significant, than what was computed above, because the scores on the pre-test and the post-test are strongly correlated, so that a t-test on the difference scores should be much less contaminated by error variance. A t-test on the difference scores does indeed show that the .45-z advantage of the experimental group over the control group is highly significant, $t(28) = 4.062$ ($p < .001$).

3.6.2 Specific effects of awareness training on prosodic components of test

As was explained in § 3.6.1, both the TOEFL pre-test and the post-test scores were a (weighted) average of scores obtained by each student on specific groups of test items or components addressing different subskills. For instance, the TOEFL pre-test comprised separate test components assessing the student's listening comprehension, reading comprehension, grammatical knowledge and writing ability. The post-test scores were based on ratings by three experts for ten performance scales addressing different aspects of the student's interpreting performance. Some of these scales relate directly to prosody (e.g., Accent, Pace and Voice) while others clearly do not (e.g., use of Grammar, Choice of words and Terminology).

In the present section I will evaluate the effect of the prosody awareness training on the students' interpreting performance more directly and more specifically than in the preceding sections by analyzing the component scores on the post-test separately. The prediction would be that prosody awareness training should have a beneficial effect on the rating scales that relate to prosody rather than the other, non-prosodic rating scales. If this difference between the two sets of rating scales can be shown, the results clearly bear out that the training program addresses the student's prosodic subskills in the interpreting performance. In the ideal case we would hope to establish that the experimental training program boosts the student's performance on all ten rating scales but gives an extra boost to the prosodic subskills.

Table 3.4 lists the mean ratings (and the standard deviations) obtained by the 15 students in the control group (left) and the 15 in the experimental group (right). Table 3.4 shows that, with the exception of just one scale, i.e., Coherence, the experimental group outperformed the control group on all aspects of consecutive interpreting. Moreover, the results show that the improvement obtained for specific prosody-sensitive aspects of interpreting performance is definitely larger, in terms of statistical separation (i.e., magnitude of t) than for the non-prosodic rating scales. If we weigh the ten scales on a par, by directly comparing the sizes of t, the improvement on the three prosodic scales is indeed significantly larger than that on the other seven scales, $t(8) = 3.367$ ($p = .005$, one-tailed).

The overall conclusion of this section must therefore be that the experimental training program leads to a broad, general improvement in (nearly) all aspects of consecutive interpreting performance, but boosts prosodic skills most. This latter finding is what I would hope to expect from a training program that addresses prosodic skills and awareness.

Table 3.4. Mean and SD of rating scores obtained on ten aspects of consecutive interpreting by students in control and experimental group (N = 15 per group). The three scales at the bottom address specific prosodic components. The difference between the means (Experimental – Control), and the associated t- and p-values (df =28, two-tailed) are specified.

Scale	Range	Control group		Exp. Group		Difference		
		Mean	SD	Mean	SD	Mean	t	p
Accuracy	1..20	11.6	3.1	14.4	3.1	2.7	2.444	.021
Omissions	1..15	9.5	2.4	11.0	2.4	1.6	1.790	.084
Coherence	1..10	7.6	1.4	7.2	1.6	–.4	–.728	.473
Grammar	1.. 7	4.3	1.0	4.8	1.1	.6	1.455	.157
Expression	1.. 7	4.0	.9	4.7	1.1	.7	2.030	.052
Word choice	1.. 7	4.2	1.2	4.8	1.2	.6	1.428	.164
Terminology	1.. 7	4.0	1.2	4.9	1.2	.9	2.178	.038
Accent	1.. 7	3.4	1.5	6.3	.8	2.9	6.693	< .001
Pace	1..10	4.6	1.6	6.7	1.5	2.1	3.817	.001
Voice	1..10	4.4	1.9	6.6	1.7	2.1	3.165	.004

Note: Levene's test for homoscedasticity (equal variance) was insignificant for all ten scales; accordingly, no adjustment of degrees of freedom was made.

3.6.3 Predicting consecutive interpreting performance by multiple regression

In this final results section I will consider the question to what extent the students' performance in consecutive interpreting can be modeled, i.e., statistically predicted, from component scores obtained by the individual subject on the TOEFL pre-test in combination with the individual's group membership (i.e., whether the student took the prosody awareness training program or the traditional curriculum).

Earlier correlation analyses showed that the student's post-test score can be predicted quite well from his/her overall TOEFL-score and that the correlation increases further when computed separately for the experimental and control groups. We will now see to what extent the five predictors identified afford an even better prediction of the student's interpreting performance. The correlation matrix of the five predictors and the criterion is given in Table 3.5.

The best single predictor of the post-test score is the student's score on the Structure & Written Expression component of the TOEFL test. Table 3.5 also shows that the components of the TOEFL test are very strongly intercorrelated so that little improvement remains when additional components are added. The student's group membership correlates moderately but significantly with the post-test score, indicating that belonging to the experimental group leads to a higher score on the post-test. Moreover, the intercorrelations between group membership and the components on the TOEFL-test are small and insignificant – as they should be. This makes group membership a good second predictor of the student's final score on the post-test.

Table 3.5. Correlation matrix of five predictors and post-test as the criterion variable. Only the non-redundant part of the 6 × 6 matrix is given. Cells contain the r-value and (in parentheses) the p-value of the coefficient (evaluated at N = 30).

	Post-test	Group	LC	SWE	RC
Group	.419 (.011)				
Listening comprehension	.853 (< .001)	.078 (.341)			
Structure and written expression	.936 (< .001)	.201 (.143)	.901 (< .001)		
Reading comprehension	.889 (< .001)	.259 (.083)	.868 (< .001)	.896 (< .001)	
Test Written English	.887 (< .001)	.102 (.296)	.938 (< .001)	.927 (< .001)	.830 (< .001)

When all predictors are entered together, the model explains 95% of the variance in the post-test scores (R = .974). Using stepwise multiple linear regression yields an optimal model with three predictors. The predictors are, in descending order of importance, SWE, Group and the Test of Written English. The remaining predictors no longer make a significant contribution. The optimal model accounts for 94% of the variance in the post-test scores. Table 3.6 summarizes the optimal stepwise multiple regression model.

Table 3.6. Summary of stepwise multiple regression predicting the student's post-test score from group membership (experimental, control) and components of TOEFL pre-test.

Predictors	Beta	t	p	R^2	ΔR^2
Structure and written expression	.612	4.731	< .001	.877	
Group	.266	5.446	< .001	.932	.054
Test Written English	.293	2.298	.030	.944	.012

The conclusion from this subsection is that the student's performance as a consecutive interpreter can largely be predicted (i.e., with some 95 percent accuracy) from a combination of components of the TOEFL pre-test. Whether the individual student was a member of the experimental group or the control group is the second-most powerful predictor of the post-test score.

3.7 Conclusion

In this study the effect of prosodic awareness training at the word and at the sentence level on the performance of interpreter trainees was examined. Our results showed that

interpreter trainees perform better they have acquired conscious knowledge word and sentence prosody and of the differences in prosody between their working languages. A more detailed statistical analysis of our data showed that our prosody awareness training yielded better interpreting performance on all quality criteria evaluated in this study – with the exception of one, i.e., textual coherence. Most of the effects of the awareness training were small and statistically insignificant (the negative effect of the training program on textual coherence was especially insignificant). Crucially, the effects of the prosody training on prosody-related evaluation criteria (accentedness, pace and voice) were strong (and significantly stronger than the effects on the other seven criteria. This clearly indicates that the training is specific and that the students' improved performance are not due to some halo-effect caused by the novelty of this part of the curriculum. Rather, we would argue that the gain in performance is obtained because of what Whalley and Hansen (2006) claimed, viz. that increased awareness of prosodic cues in the (non-native) input speech facilitate the listener's task of breaking up the incoming stream of sound into syllables, words and phrases, inform syntactic structure, and emphasize salient content words.

It has been shown before that a closer approximation of the prosody of native English yields better intelligibility and comprehensibility of non-native speech (e.g., Derwing et al. 1998, Field 2005; also see § 3.1). In a recent study by the present authors it was shown that our prosody training program was successful in boosting the quality of the speech output in so-called inverse consecutive interpreting, i.e., from native Farsi into non-native English (Yenkimaleki & Van Heuven 2016c). In inverse interpreting, of course, the increased awareness of the prosodic requirements of English is directly observable in the output of the interpreting process. In the present experiment, which targeted straight interpreting from foreign into native language, the effects of prosody are indirect, since they primarily affect the processing of the non-native input speech. Interestingly, the effects of the prosody training program we found are statistically stronger for the present study, i.e., the effect sizes are larger for interpreting into the native language than into the foreign language. Although we do not precisely know why this should be so, additional experiments with independent but similar groups of Iranian participants have shown that the same prosody training also yielded significantly better performance on English speech comprehension tests (Yenkimaleki & Van Heuven 2016a, see also Chapter 5) and on English word recognition tests (Yenkimaleki & Van Heuven 2016b, see also Chapter 4). We interpret these findings as unequivocal support for our claim that increased prosody awareness facilitates the processing of non-native input speech.

There used to a popular belief that knowing two languages very well is enough for a language user to produce a high-quality translation (e.g., Harris 1977, Harris & Sherwood 1978, Lambert 1978). For instance, it has been shown that perfect (early) bilinguals are not necessarily able translators or proficient interpreters (Grosjean 2001). The upshot of this reasoning, then, is that an excellent command of two working languages (one native, one non-native) is a necessary but not a sufficient condition for high-quality translating and interpreting. That knowing how to process and understand the foreign input language is a pre-condition to interpreting is shown convincingly by our finding that the general level of proficiency in English (as measured by the TOEFL test) is of overriding importance when it comes to predicting the quality of the student's

interpreting performance. The quality assessment of our student interpreters ranged between 33 and 94 points on a scale from 0 to 100. The exact location of the individual score within this range could be predicted with 88% accuracy from one single component score the student obtained half a year earlier on the TOEFL test. Given this overwhelming effect of the TOEFL score it is all the more surprising that the prosody awareness training still added 5 percent accuracy (on average) to the prediction of the students' performance as an interpreter. One might wonder, at this juncture, why the Structure and Written Expression test in the TOEFL battery should be the component that supplies the best prediction of the student's interpreting performance rather than, for instance, the student's listening comprehension score. The latter component would relate more directly to language skills that play a role in processing the input speech as part of the interpreting process. The point is that the four component scores of the TOEFL test we administered are very strongly intercorrelated, with coefficients ranging between $r = 0.830$ and $r = 0.857$. Differences in the magnitude of r with this narrow range are statistically insignificant and therefore not meaningful. All one can say at this point is that the components of the TOEFL test are equally influential. That the Structure and Written Expression component is singled out as the first predictor in the optimal model (see Table 3.7) depends on the accidental circumstance that this component has a slightly (but insignificantly) better correlation with the criterion than the other components, which in turn cannot add substantially to the prediction; this is a consequence of the 'winner takes all' principle underlying the stepwise regression model.

The four language skills tend to be strongly correlated in foreign-language proficiency tests (e.g., Poelmans 2003, Liu & Costanzo 2013). Given the more or less equal amount of time and attention that the foreign-language curricula spend on developing production and reception skills in both the visual and spoken language modalities, it is unusual for a foreign-language learner to become highly proficient in just one skill rather than in all four. Moreover, there is substantial cross-talk between the skills: new words and structures that the student meets while reading, will transfer to listening, and at least part of what is learnt through reading and speech perception the student will use later in his own writing and speech production. As a consequence of this we found it impossible, for instance, to find a-typical Dutch students of English with good listening comprehension skills but with poorly developed basic vocabulary and grammar (Poelmans 2003: Chapter 4 'Predicting the listening skill'). The Structure and Written Expression module of the TOEFL test does not really target the student's writing skill per se (this is done more directly by the writing module of the test). Rather, it tests the student's knowledge of English grammatical structure by asking the participant to detect ungrammaticalities and to complete unfinished structures. By doing so, the module tests the student's use of grammatical and lexical knowledge to predict how an English sentence develops over time. Being able to predict how a sentence will go on is known to be a powerful subskill in word recognition and sentence comprehension (e.g., Rost 2002).

Our results clearly show that prosody awareness training contributes substantially and significantly to the quality of interpreting from foreign into native language by native speakers of Farsi. The effects of prosody training will differ for other native-foreign language pairs, depending on the linguistic and phonetic similarity of the prosodic

systems involved. The word and sentence prosody of English and Farsi would diverge more from one another than, for instance, German and English or Dutch and English but not as much as English and French. The pedagogical implication of this study would be to incorporate effective prosodic activities in the interpreter training curriculum, at least in Iran. This can be done by exposing the students to authentic materials spoken in English with an abundance of word and sentence stresses that occur in unusual positions from the Farsi point of view. Whether the exposure should be supplemented with explicit explanations of the prosodic differences is an open question that should be addressed in future research. Future research should also test the added value of computer-aided instruction in the area of prosody awareness training.

Gut, Trouvain and Barry (2007) claim that based on the native and the target languages of the learners, instructors should employ different methodologies in practice. Depending on which languages are dealt with, instructors should choose different methodologies. One way to improve pronunciation and prosody would be for second-language learners to record their own speech, listen to it, compare their imitation with the native model, and repeat the exercise until they can no longer detect a difference between model and imitation (e.g., Sundström 1998, Bissiri & Pfitzinger 2009). There is, however, a limit to what discrepancies foreign-language learners are able to detect between a native model and their own imitation of it. The imitation process can be enhanced by providing auditory and/or visual feedback on the learner's attempts. For instance, prosodic errors can be auditorily detected by the learner by applying 'prosody conversion', i.e., replacing the native speech melody by the learner's imitation or vice versa (e.g., Nagano & Ozawa 1990, Sundström 1998, Hirose 2004). Providing visual feedback would be another powerful tool. Here a (stylized) representation of the learner's imitation of the speech melody is superimposed onto the native model, so that the learner sees where the discrepancies and what can be done to approximate the native model contour more closely (e.g., De Bot & Mailfert 1982, De Bot 1983, Hardison 2004, Su & Tseng 2015).

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Appendices to Chapter three

Appendix 3.1: Side-by-side comparison of training program for experimental (left page) and control (right page) groups.

Appendix 3.2: Information about the TOEFL test which has been applied.

Appendix 3.3: Sample questions of summative test for control group and experimental group.

Appendix 3.4: The three audio extracts which were evaluated by raters.

Appendix 3.5: An ideal model for interpretation for three extracts which have been evaluated.

Appendix 3.1. Side-by-side comparison of training program for experimental (left page) and control (right page) groups.

Experimental group, week 1

Time	**Opening**	**Monitor/Feedback**
30 mins.	I explained interpreting and defined it and communicated its potential value and professional reasons and explained how it can be used or adapted.	I asked questions based on the discussions to get feedback to see how much they followed the points.
30 mins.	**Activities** A self-training exercise to improve or achieve full attention and concentration and to make both hemispheres work synchronically. 1. I showed a movie (Iranian movie, *The fired*) and asked students to try to write all the digits and letters of all the car number plates they saw in the movies. 2. I showed a movie (English movie, *Competition*) and asked students to try to write all the digits and letters of all the car number plates they saw in the movies and convert them from language 1 into language 2.	I moved around the class and helped some students when needed.
20 mins.	**Prosody awareness training** Marking syllables: I played a list of words/sentences and had learners count syllables and mark which syllables were stressed. Examples: **Words**: *deport, demarcation, campsite, cardiologist, carnival, catastrophe, cavalry, champion, charger, cheery, chowder.* **Sentences**: *The increased pressure within the muscle compresses nerves and blood vessels. The players had swelling in their triceps. I was just kind of shocked this was happening to us. The students said they did not take any body building supplements. We believe it was a strenuous workout, but we don't believe it was excessive. That's used so commonly by athletes of all ages.*	I asked students to mark the syllables on work sheet and hand in to me to assess their work. I asked some students to come in front of class to read the words/sentences aloud again to see how much in practice they were able to produce the correct stress patterns of words and sentences.
10 mins.	**Homework** 1. Translate the expressions below by expressing the underlying idea without using the word *tooth*: t*o be long in the tooth; to cut one's teeth on; to sow dragon's teeth; to get one's teeth into; by the skin of one's teeth; in the teeth of; armed to the teeth.* 2. Translate the following by expressing the underlying idea without using the word *cat*: *There's more than one way to skin a cat. He has more lives than a cat. He was as nervous as a cat on a hot tin roof; When the cat's away the mice will play. She had a Cheshire-cat smile; Curiosity killed the cat. Like a cat, he always lands on his feet. You're the cat's pajamas. He came in looking like the cat who got the cream. Has the cat got your tongue? Don't let the cat out of the bag.*	I instructed the students to do these exercises outside the classroom and hand in their answers on paper.

Control group, week 1

Time	**Opening**	**Monitor/Feedback**
30 mins.	Same as experimental group.	Same as E group.
30 mins.	**Activities** Same as experimental group.	Same as E group.
20 mins.	**Practice in interpreting: Role playing:** Students were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of an English engineer who has come to set up a machine in a factory in Iran. The other students were instructed to interpret him by turn in each group; group members could consult with each other. This session it was voluntary for each student to be representative of the groups but for the next session group representatives were determined this week to be ready about their role for the next week.	Instructor moved around the class, monitored students' performance and helped out when asked.
10 mins.	**Homework** Same as experimental group. .	Same as E group. . .

Experimental group, week 2

Time	**Opening**	**Monitor/Feedback**
30 mins.	1. Different types of interpreting explained, simultaneous and consecutive. 2. Memory skills and acquisition of a personalized note-taking technique was explained. 3. Terminology management and mediated face-to-face communication was explained.	I asked questions based on the discussions to get feedback to see how much they followed the points.
30 mins.	**Activities** 1. I tried to increase the self-confidence of my students particularly where their memory is concerned. This is definitely necessary because almost all of them complain about not being able to memorize new information or retain certain pieces of important data in their short- and long-term memory. **Example**: an exercise with interesting or funny data to demonstrate to my students that they can easily remember quite complicated data so long as it is *important* or *interesting* to them. Here I explain how our memory works and how it deals with important and non-important information which we intend to memorize. The exercise is called *Very Interesting* and it is a dictation of short texts containing interesting figures, dates, etc. For example: *The American fast-food chain Macdonald's appeared for the first time in 1955, but it had no tables or chairs until 1966*. The dictation may be in either language or may swap between the two languages once self-confidence is gained and the exercise is being used purely to train STM and LTM.	I moved around the class and helped students when needed.
20 mins.	**Prosody training** Marking syllables: I played a list of words/sentences and had learners count syllables and mark which syllables are stressed. Examples: **Words:** *commands, concern, compassion, hidden agenda, diplomatic, persuasive, manipulative, commander, military aid recipient, civilian.* **Sentences:** *This year we have been seeing a slow-growth economy. Investors shy away from an oscillating market. I am confident this is a secular bull market. It's a case of dollars chasing stocks. Retailers are euphoric about general-merchandise sales. There's been some pick-up in the wholesale sector. The cautious will stand by during the market catch-up. This stock is an attractive turnaround situation. The overall economy shows strong secular growth prospects.*	I asked students to mark the syllables on work sheet and hand in their answers to assess their work. I asked some of the students to come in front of class to read the words/sentences aloud, again to see how much in practice they are able to produce the correct stress patterns of words and sentences.
10 mins.	**Homework** Explain, illustrate and translate the following: *once in a blue moon; a blue dog democrat; till you're blue in the face; black humor; purple passion; a greenhorn; to have a green thumb; not one red cent; to be yellow; a gray eminence; to wear black robes; black box; lily-white; blue-eyed boy; a blue-ribbon commission; cordon-bleu; green party; to make it into the black numbers; to be in the red.*	I instructed the students to do these exercises outside the classroom and hand in their answers on paper.

Control group, week 2

Time	**Opening**	**Monitor/Feedback**
30 mins.	Same as Experimental group.	Same as E group.
30 mins.	**Activities:** Same as Experimental group.	Same as E group.
20 mins.	**Practice in interpreting: Role playing** Students were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of a lawyer who has come to settle a diplomatic problem of refugees in Iran. The other students were instructed to interpret him by turn in each group and group members could consult with each other.	I moved around the class and helped students when needed.
10 mins.	**Homework** Same as Experimental group.	Same as E group.

Experimental group, week 3

Time	**Opening**	**Monitor/Feedback**
30 mins.	Aspects of interpreting were explained. 1. Socio-cultural: situation: setting, status of participants, purpose of encounter, societal norms and rules regarding interpreter behavior, professional ethics, norms of interpreting. 2. Linguistic: language skills- knowledge of genres, text/ discourse types. 3. Cognitive: knowledge of topic, situation, participants, interpreting technique, meta-communicative competence: knowing what to do and why.	I asked questions based on the discussions to get feedback to see how much students followed the points.
30 mins.	**Activities** I tried to work hard on the students' concentration and level of attention from the very beginning. **Example:** An exercise with distractions, like extra sounds, excessive gesticulation, etc. This kind of "distractive modelled environment" I call "training in obstacled conditions". Any instructor can create his or her own list of distractions, depending on the level of the group or the specific aim. It was an English movie, *In the airport,* which students watched.	I moved around the class and helped some students when needed.
20 mins.	**Prosody training** Marking syllables: I played a list of words/sentences and have learners count syllables and mark which syllables are stressed. Some examples of these words and sentences were: **Words**: *cautious, market catch-up, attractive turnaround situation, overall economy, secular growth prospects, internal growth characteristics, interactive software, durable goods, hiring top-performing mutual fund managers.* **Sentences:** *Hardware stores are losing their market niche to superstores. Financial markets are only just recovering from the tequila effect. This month we've had a stealth bull market. Every now and then we get a horrendous correction. Innovations have thinned the ranks of the competition. There is overcrowding of supply in this sector, producing some margin pressures. Retail is having soft sales.*	I asked students to mark the syllables on work sheet and hand in their asnwers to assess their work. I asked some of the students to come in front of class to read the words/sentences aloud, again to see how much in practice they are able to produce the correct stress patterns of words and sentences.
10 mins.	**Homework** Translate the following passage into Farsi. Translate the proverb first literally, and then, if possible, by an equivalent proverb or other figure of speech: *Voices can be heard today expressing pessimism about the future of our organization. We prefer the opinion that this organization is proving its continuing viability through its actions. Let me refer to a Slovak proverb, "If you do nothing you cannot make a mis take." In this respect the willingness … of the United Nations to take and further accept the burden of great responsibility deserves our highest appreciation.* (Statement by the President of the Slovak Republic)	I instructed the students to do these exercises outside the classroom and hand in their answers on paper.

Control group, week 3

Time	**Opening**	**Monitor/Feedback**
30 mins.	Same as Experimental group.	Same as E group.
30 mins.	**Activities** Same as Experimental group.	Same as E group.
20 mins.	**Practice in interpreting: Role playing** Students were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of a professor who has come to teach at Arak University in Iran. The other students were instructed to interpret him by turn in each group and group members could consult with each other.	I moved around the class and helped students when needed.
10 mins.	**Homework** Same as Experimental group.	Same as E group.

Experimental group, week 4

Time	**Opening**	**Monitor/Feedback**
30 mins.	Transfer skills: Necessary transfer skills explained, including (i) short consecutive and whispered simultaneous interpreting skills, which can be mainly taught in the classroom, firmly rooted in realia and (ii) including carefully planned professional challenges.	I asked questions based on the discussions to get feedback to see how much students followed the points.
30 mins.	**Activities** I tried to work hard on the students' concentration and level of attention from the very beginning. This time the training exercise was difficult (authentic CNN news broadcast for students with one-minute intervals between each 30 seconds).	I moved around the class and helped students when needed.
20 mins.	**Prosody training** Marking syllables: I played a list of words/sentences and have learners count syllables and mark which syllables are stressed. Some examples of these words and sentences were: **Words:** *A milquetoast bear, stupendous margin, call propelling, unwinding of a lot of leverage, stock market cycle, redundant, unnecessary, parasitic, incomprehensible.* **Sentences:** *Supply is expanding to meet demand and then some. These stocks have solid, tappable earnings. If the fundamentals deteriorate, we'll get out. This is an interest-sensitive sector. It's been a sterling performance for technology stocks. He is one of the year's standout stock pickers. The holiday season was less than a sales bonanza.*	I asked students to mark the syllables on work sheet and hand in their answers to assess their work. I asked some of the students to come in front of class to read the words/sentences aloud, again to see how much in practice they were able to produce the correct stress patterns of words and sentences.
10 mins.	**Homework** Translate the following passage into Farsi preserving parallelism to the extent possible: *The ozone layer, a fragile shield which protects the Earth from the harmful portion of the rays of the sun (namely, excess solar UV-B radiations) is being damaged by man-made chemicals released on Earth. The main danger from the weakening of this shield is that it could lead to a rising intensity of the ground level UV-B radiation. This in turn could lead to increased rates of skin cancer and eye cataracts, to stunted agricultural production, and to the possible disappearance of phytoplankton – organisms which form the base of the marine food chain.*	I instructed the students to do these exercises outside the classroom and hand in their answers on paper.

Control group, week 4

Time	**Opening**	**Monitor/Feedback**
30 mins	Same as Experimental group.	Same as E group.
30 mins.	**Activities** Same as Experimental group.	Same as E group.
20 mins.	**Practice in interpreting: Role playing** Students were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of a businessman who has come to buy carpets in Iran. The other students were instructed to interpret him by turn in each group and group members could consult with each other.	I moved around the class and helped students when needed.
10 mins.	**Homework** Same as Experimental group.	Same as E group.

Experimental group, week 5

Time	**Opening**	**Monitor/Feedback**
30 mins.	It was explained that the interpreting field agrees on the undoubted need for: 1. Profound knowledge of active languages (SL/TL) and cultures. 2. Ability to grasp rapidly and convey the essential meaning of what is being said. 3. Ability to project information with confidence and a pleasant voice. 4. Wide general knowledge and interests, and a willingness to acquire new information. 5. Ability to work as a team member.	I asked questions based on the discussions to get feedback to see how much they followed the points.
	Activities	
30 mins.	Students were divided into five groups (each group 3 students). They were asked to listen to audio extracts from CNN. Each extract lasted 30 seconds and the groups were given one minute intervals to interpret it. Each time one member of the group could speak and sometimes they could consult with each other before interpreting.	I moved around the class and helped students when needed.
	Prosody training	
20 mins.	Marking syllables: I played a list of words/sentences and have learners count syllables and mark which syllables are stressed. Some examples of these words and sentences were: **Words:** *unbridgeable difference, contention, sophisticated rendition, metaphor, proverb, political development, incapable of proper control, contrivance.* **Sentences:** *There's been some liquidation in industrial commodities. In some sectors, there is chronic overcapacity. Some stock areas are oversold. Inflation would be a problem if we saw some broad-based signs of inflation, not just a commodity blip in selected markets. People are taking giant bets on hedge funds. Existing bond earnings might be grandfathered if a flat tax law is passed. Nobody bats 1000 in financial predictions.*	I asked students to mark the syllables on work sheet and hand in to me to assess their work. I asked some of the students to come in front of class to read the words/sentences aloud, again to see how much in practice they were able to produce the correct stress patterns of words and sentences.
	Homework	
10 mins.	Translate the following passage into Farsi. *The activities of the state imply making efforts on several fronts in order to consolidate the new social image of women, rolling back the remaining prejudices; involving women in decision making and promoting their participation in positions of power; supporting equality; offering greater opportunities for improved educational training designed for an appropriate and just entry to the labor market; eliminating all forms of violence and discrimination against women; and encompassing topics affecting the status of women under public policies with a view to overcoming their disadvantaged position.*	I instructed the students to do these exercises outside the classroom and hand in their answers on paper.

Control group, week 5

Time	**Opening**	**Monitor/Feedback**
30 mins.	Same as Experimental group.	Same as E group.
30 mins.	**Activities** Same as Experimental group.	Same as E group.
20 mins.	**Practice in interpreting: Role playing** Students were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of tourist who has come to have a visit from Iran. The other students were supposed to interpret him by turn in each group and group members could consult with each other.	I moved around the class and helped some students when they needed help.
10 mins.	**Homework** Same as Experimental group.	Same as E group.

Experimental group, week 6

Time	**Opening**	**Monitor/Feedback**
30 mins	Some of the previous home works were discussed and of course the topics which covered last session. Codes of conduct and good practice guides were explained to the students. 1. Code of ethics. 2. Guides to good practice for the range of working contexts. 3. Quality assurance. 4. Disciplinary procedures.	I asked questions based on the discussions to get feedback to see how much they followed the points.
30 mins.	**Activities** Students were divided into five groups (each group 3 students). They were asked to listen to Audio extracts which were from CNN. Each extract was for 30 seconds and the groups were given one minute interval to interpret it. Each time one member of the group could speak and sometimes they could consult with each other before interpreting.	I moved around the class and helped some students when they needed help.
20 mins.	**Prosody training** Identification of content and function words: I asked Learners to underline content words in sentences when audio extracts were played for the students**.** **Example:** *Snow and ice dominated the headlines for more than a week at the start of the year, as Britain shivered in the longest cold spell for almost 30 years. Thousands of schools closed, buses, trains and planes were delayed, and power supplies failed as winter chaos reigned. On 12 January, a devastating earthquake struck Haiti, claiming 230,000 lives and leaving more than one million people homeless. In the UK, Jonathan Ross announced he was leaving the BBC after 13 years. The corporation's highest paid star insisted his decision was not financially motivated.*	I asked students to mark the content words and function ones and hand in to me to assess their work.
10 mins.	**Homework** Students were asked to listen to three minutes BBC news and write the transcription of it and deliver it next week. Some of the previous homework assignments were discussed by the students and instructor explained his idea about them	Instructor received feedback from previous homework assignments of the students.

Control group, week 6

Time 30 mins	**Opening** Same as Experimental group.	**Monitor/Feedback** Same as E group.
30 mins.	**Activities** Same as Experimental group.	Same as E group.
20 mins.	**Practice in interpreting: Role playing** Students were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of a physician who has come to visit hospitals in Iran. The other students were instructed to interpret him by turn in each group and group members could consult with each other.	I moved around the class and helped some students when they needed help.
10 mins.	**Homework** Same as Experimental group.	Same as E group.

Experimental group, week 7

Time	**Opening**	**Monitor/Feedback**
30 mins.	Some of the previous home works were discussed and of course the topics which covered last session. Discourse Genre: One of the most important things the students have to know is how to identify the discourse genre of the talk to be interpreted which was explained to the students.	I asked questions based on the discussions to get feedback to see how much they followed the points.
30 mins.	**Activities** Students were divided into five groups (each group 3 students). They were asked to listen to audio extracts which were from CNN. Each extract lasted 30 seconds and the groups were given one minute interval to interpret it. Each time one member of the group could speak and sometimes they could consult with each other before interpreting.	I moved around the class and helped some students when they needed help.
20 mins.	**Prosody training** Identification of content and function words: I asked learners to underline content words in sentences when audio extracts were played to them**.** **Example:** *BBC news journalists have been told to use social media as a primary source of information by Peter Horrocks, the new director of BBC Global News who took over last week. He said it was important for editorial staff to make better use of social media and become more collaborative in producing stories. "This isn't just a kind of fad from someone who's an enthusiast of technology. I'm afraid you're not doing your job if you can't do those things. It's not discretionary", he is quoted as saying in the BBC in-house weekly Ariel. Horrocks said that technology was changing journalism, adding that it was important for the BBC to leave a programme-based mindset behind and adapt to new technologies.*	I asked students to mark the content words and function ones and hand in the answer sheet to me to assess their work.
10 mins.	**Homework** Students were asked to listen to three minutes of BBC news, produce a transcript of it and hand it in the next week. Previous homework assignments were discussed by the students and the instructor explained his idea about them.	Instructor received feedback from previous homework assignments of the students.

Control group, week 7

Time 30 mins.	**Opening** Same as Experimental group.	**Monitor/Feedback** Same as E group.
30 mins.	**Activities** Same as Experimental group.	Same as E group.
20 mins.	**Practice in interpreting: Role playing** Students were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of interpreter who has come to work as the interpreter of the coach of the national soccer team in Iran. The other students were instructed to interpret him by turn in each group and group members could consult with each other.	I moved around the class and helped students when needed.
10 mins.	**Homework** Same as Experimental group.	Same as E group.

Experimental group, week 8

Time	**Opening**	**Monitor/Feedback**
30 mins.	Some previous homework assignments were discussed and the topics of the previous session were reviewed. A framework for determining factors affecting quality was explained. These were: consistency, logic, coherence, completeness, accurateness, unambiguity, clarity.	I asked questions based on the discussions to get feedback to see how much they followed the points.
30 mins.	**Activities** Students were divided into five groups (each group 3 students). They were asked to listen to audio extracts from the BBC. Each extract lasted 30 seconds and the groups were given a one minute interval to interpret it. Each time one member of the group could speak; sometimes they could consult with each other before interpreting. **Example:** *Ash from a volcanic eruption in Iceland dominated the most-read list in April as all flights in and out of the UK were suspended. The cloud triggered the UK's worst airspace restriction in living memory and brought much of Europe to a standstill. Thousands of Britons were stranded as the UK remained a virtual no-fly zone for several days. An explosion on the deep water Horizon platform in the Gulf of Mexico killed 11 oil workers and caused one of the worst oil spills in history, and a PR disaster for BP.*	I moved around the class and helped students when needed.
20 mins.	**Prosody training** Identification of content and function words. I asked learners to underline content words in sentences when audio extracts were played to them**.** **Example:** *The species list was put together by scientists at the BBC and Conservation International and they feature in the BBC TV program Decade of Discovery, shown tonight. The stick-insect's common name is Chan's megastick and, at about the length of your arm, it is the longest insect in the world. Chan's megastick is found in Borneo and was only given its scientific name, Phobaeticus chani, in 2008. Scientists think it probably lives high up in the rainforest canopy, something that would have helped it stay hidden from view for so long.*	I asked students to mark the content and function words and hand in their answer sheets to me to assess their work.
10 mins.	**Homework** Students were instructed to listen to three minutes of BBC news, to produce a transcription of it and hand it in the next week. Some previous homework assignments were discussed with the students and the instructor explained his idea about them.	Instructor received feedback from previous homework assignments of the students.

Control group, week 8

Time 30 mins.	**Opening** Same as Experimental group.	**Monitor/Feedback** Same as E group.
30 mins.	**Activities** Same as Experimental group.	Same as E group.
20 mins.	**Practice in interpreting: Role playing** Students were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of worker who has come to work in petroleum industry in Iran. The other students were supposed to interpret him by turn in each group and group members could consult with each other**.**	I moved around the class and helped students when needed.
10 mins.	**Homework** Same as Experimental group.	Same as E group.

Experimental group, week 9

Time	**Opening**	**Monitor/Feedback**
30 mins.	Instructor recapitulated the main points of previous discussion. Some more factors which affect quality in interpreting were explained. They were: grammatical correctness, adherence to TL norms, comprehensibility, stylistic adequacy, terminological adequacy, voice quality.	I asked questions based on the discussions to get feedback to see how much they followed the points.
30 mins.	**Activities** Students were divided into five groups (each group 3 students). They were asked to listen to Audio extracts which were from BBC. Each extract was for 30 seconds and the groups were given one minute interval to interpret it. Each time one member of the group could speak and sometimes they could consult with each other before interpreting. **Example:** *General Election month and readers were captivated by every twist and turn in a genuine political drama. The tension built as millions cast their vote and Britain headed for a hung Parliament - but it was not until four days after polling day that Gordon Brown announced he was stepping down as Labour leader. Defeat closed in on Labour then voters finally awoke to a new Conservative-led coalition government with the Liberal Democrats*.	I moved around the class and helped students when needed.
20 mins.	**Prosody training** Identification of content and function words: I asked Learners to underline content words in sentences when audio extracts were played for the students. **Example:** *Most read this month was the shooting rampage by taxi driver Derrick Bird which left a dozen people dead and 25 injured in Cumbria. The first fatality was his twin brother, David, in Lamplugh. He then shot two others he knew before driving south, apparently shooting people at random. His body was found in the Boot area. Chancellor George Osborne's Budget came next as he increased VAT and cut welfare spending to tackle Britain's record debts*.	I asked students to mark the content and function words and hand in their answer sheets to me to assess their work.
10 mins.	**Homework** Students were asked to listen to three minutes BBC news and write the transcription of it and deliver it next week. Some of the previous homework assignments were discussed by the students and instructor explained his idea about them.	Instructor received feedback from previous homework assignments of the students.

Control group, week 9

Time	**Opening**	**Monitor/Feedback**
30 mins.	Same as Experimental group.	Same as E group.
30 mins.	**Activities** Same as Experimental group. .	Same as E group.
20 mins.	**Practice in interpreting: Role playing** Students were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of pilot who has come to work in Iran. The other students were supposed to interpret him by turn in each group and group members could consult with each other.	I moved around the class and helped students when needed.
10 mins.	**Homework** Same as Experimental group.	Same as E group.

Experimental group, week 10

Time	**Opening**	**Monitor/Feedback**
30 mins.	Instructor recapitulated the main points of previous discussion. Pre-process prerequisites of interpreting were explained. Some of them were: skills and competences, contract specifications, task definition, preparation.	I asked questions based on the discussions to get feedback to see how much they followed the points.
30 mins.	**Activities** Students were divided into five groups (each group 3 students). They were asked to listen to Audio extracts which were from BBC. Each extract was for 30 seconds and the groups were given one minute interval to interpret it. Each time one member of the group could speak and sometimes they could consult with each other before interpreting. **Example:** *Another month, another shooting rampage. This time, all eyes were on the town of* Rothbury *in Northumberland after gunman Raoul Moat shot three people and went on the run. After shooting his ex-girlfriend and killing her new partner, the former bouncer shot policeman David Rathband in his patrol car, before eventually killing himself after a six-hour stand-off with armed officers. A mishmash of other stories made it on to the most-read list. A five-year-old Irish boy wrongly accused of stealing a bag of crisps won his damages case against supermarket chain Lidl.*	I moved around the class and helped students when needed.
20 mins.	**Prosody training** Identification of content and function words: I asked Learners to underline content words in sentences when audio extracts were played for the students**.** **Example**: *August threw up a mixed bag of news in keeping with its traditional "silly season" tag. Sky watchers enjoyed "fantastic views" of the annual Perseid meteor shower and a US man taken to hospital for a collapsed lung was told he had a pea plant growing in his lung. Comedian Tim Vine won a prize for the funniest joke of the Edinburgh Fringe. His gag: "I've just been on a once-in-a-lifetime holiday. I'll tell you what, never again."*	I asked students to mark the content and function words and hand in their answer sheets to me to assess their work.
10 mins.	**Homework** Students were asked to listen to three minutes BBC news and write the transcription of it and deliver it next week. Some of the previous homework assignments were discussed by the students and instructor explained his idea about them.	Instructor received feedback from previous homework assignments of the students.

Control group, week 10

Time 30 mins.	**Opening** Same as Experimental group.	**Monitor/Feedback** Same as E group.
30 mins.	**Activities** Same as Experimental group.	Same as E group.
20 mins.	**Practice in interpreting: Role playing** Students were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of high school teacher who has come to attend in a workshop in Iran. The other students were supposed to interpret him by turn in each group and group members could consult with each other.	I moved around the class and helped students when needed.
10 mins.	**Homework** Same as Experimental group.	Same as E group.

Experimental group, week 11

Time	**Opening**	**Monitor/Feedback**
30 mins.	Instructor recapitulated the main points of previous discussion. Some of the conditions of interpreting performance were explained. Some of them were: Number of participants, working languages, technical equipment, booth position, team strength, composition working hours, event duration, language combinations, availability of documents, information on proceedings.	I asked questions based on the discussions to get feedback to see how much they followed the points.
30 mins.	**Activities** Students were divided into five groups (each group 3 students). They were asked to listen to Audio extracts which were from BBC. Each extract was for 30 seconds and the groups were given one minute interval to interpret it. Each time one member of the group could speak and sometimes they could consult with each other before interpreting. **Example:** *Sibling rivalry topped the most-read list in September as Ed Miliband was narrowly elected Labour leader over his brother David. Their political rival David Cameron's father Ian died, then it was revealed his daughter Florence, who was born last month, slept in a box rather than a cot. Despite some arrests by counter-terrorism officers, Pope Benedict XVI's four-day state visit went without a major hitch, although there were protests. It was the first official trip by a serving pontiff since 1982.*	I moved around the class and helped students when needed.
20 mins.	**Prosody training** I asked students exaggerate stress production: I encouraged students to exaggerate their production of stress and rhythm of words to identify the meaning. **Example:** *inter~enter, live~leave, bear~beer, hair~here, blue~blew, fair~fare, loud~load, blouse~blows, full~fool, would~wound, pull~pool, carve~curve, card~curd, fair~fear, stirvsteer, bird~beard, sit~seat, slip~sleep, fit~feet, hit~heat, rid~read, ship~sheep.*	I asked students to pronounce words in an exaggerated manner to identify their meaning.
10 mins.	**Homework** Students were asked to listen to three minutes BBC news and write the transcription of it and deliver it next week. Some of the previous homework assignments were discussed by the students and instructor explained his idea about them.	Instructor received feedback from previous homework assignments of the students.

Control group, week 11

Time	**Opening**	**Monitor/Feedback**
30 mins.	Same as Experimental group.	Same as E group.
30 mins.	**Activities** Same as Experimental group.	Same as E group.
20 mins.	**Practice in interpreting: Role playing** Students were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of economist who has come to propose some practical ways in selling oil in Iran. The other students were supposed to interpret him by turn in each group and group members could consult with each other.	I moved around the class and helped students when needed.
10 mins.	**Homework** Same as Experimental group.	Same as E group.

Experimental group, week 12

Time	**Opening**	**Monitor/Feedback**
30 mins.	Instructor recapitulated the main points of previous discussion. Some in-process requirements of interpreting were explained. They were: Skills and competences, contract specifications, task definition, preparation, knowledge and presuppositions, conditions of ST presentation, target language requirements, interactional competence.	I asked questions based on the discussions to get feedback to see how much they followed the points.
30 mins.	**Activities** Students were divided into five groups (each group 3 students). They were asked to listen to audio extracts from the BBC. Each extract lasted 30 seconds and the groups were given one minute intervals to interpret it. Each time one member of the group could speak and sometimes they could consult with each other before interpreting. **Example:** *There was huge interest in the conclusion of a drama in Chile as 33 miners were successfully rescued after two months trapped deep underground. That only just beat George Osborne's Spending Review to the top slot, as the chancellor unveiled the biggest UK cuts for decades and axed child benefit for higher-rate taxpayers. The scrapping of 192 quangos - public bodies like the Film Council - was also well read. As were plans to ditch Harrier jump jets, the Navy's flagship HMS Ark Royal and cut thousands of jobs in the strategic defence review.*	I moved around the class and helped students when needed.
20 mins.	**Prosody training** I asked students exaggerate stress production: I encouraged students to exaggerate their production of stress and rhythm of words to identify their meaning. **Examples:** *abate~abbot, abort~about, absolve~absorb, admiral~admire, adapt~adopt, affect~effect, billow~bellow, heed~hide, come~calm, come~comb, deer~dear, reed~read, scene~sin, feel~fill, curious~curiosity, hit~heat, bit~beat, cat~cut, heard~hurt, code~coat, mate~made, lope~lobe, cart~card, broke~brogue, back~bag, laid~led, paste~pest, fade~fed, barn~burn, lark~lurk, life~laugh, tight~tart, spike~spark, fear~fee, steered~steed, beard~bead, moor~more, dour~door, tour~tore, sure~shore, air~ear, steel~still, been~bin, half~huff, mast~must, heart~hat, part~pat, wooed~wood, balm~bomb, dark~dock, bead~bid, fill~fell, built~belt, lift~left, tin~ten.*	I asked students to pronounce words in an exaggerated manner to identify their meaning.
10 mins.	**Homework** Students were asked to listen to three minutes of BBC news, produce a transcript of it and hand it in the next week. Some of the previous homework assignments were discussed by the students and instructor explained his idea about them.	Instructor received feedback from previous homework assignments of the students.

Control group, week 12

Time	**Opening**	**Monitor/Feedback**
30 mins.	Same as Experimental group.	Same as E group.
30 mins.	**Activities** Same as Experimental group.	Same as E group.
20 mins.	**Practice in interpreting: Role playing** **S**tudents were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of an English teacher who has come to teach in high school for six months in Iran. The other students were instructed to interpret him by turn in each group and group members could consult with each other.	I moved around the class and helped students when needed.
10 mins.	**Homework** Same as Experimental group.	Same as E group.

Experimental group, week 13

Time	**Opening**	**Monitor/Feedback**
30 mins.	Instructor recapitulated the main points of previous discussion. Some more features of interpreting were explained. Some of them were: terminological follow-up, documentation, quality, control, further training, specialization, adaptation to technical progress.	I asked questions based on the discussions to get feedback to see how much they followed the points.
30 mins.	**Activities** Students were divided into five groups (each group 3 students). They were asked to listen to audio extracts e from the BBC. Each extract lasted 30 seconds and the groups were given one minute intervals to interpret it. Each time one member of the group could speak and sometimes they could consult with each other before interpreting. **Example:** *Freezing weather returned to the UK, as forecasters warned of the earliest significant snowfalls since 1993. Hundreds of schools closed and motorists and air passengers faced long delays. In Cornwall, meanwhile, floods and gales caused travel chaos across the county. There were heated scenes in Westminster as protests against plans to treble tuition fees turned violent. Demonstrators stormed buildings and smashed windows, overshadowing the planned day of action News that Prince William was to marry long-term girlfriend Kate Middleton in 2011 also drew strong interest. Clarence House announced the date and venue a week later.*	I moved around the class and helped students when needed.
20 mins.	**Prosody training** Changing the meaning: I played words and phrases to the students using contrastive stress and then discussed the meanings. **Example:** *ˈgreen house~green ˈhouse, ˈblackbird (a special bird)~black ˈbird (any bird with black feathers), ˈwhite house~white ˈhouse, absent* (ˈæbsənt~æbˈsɛnt)*, accent* (ˈæksənt~əkˈsɛnt)*, addict* (ˈædɪkt~əˈdɪkt)*, address* (ˈædrɛs~əˈdrɛs)*, attribute* (ˈætrɪbjuːt~əˈtrɪbjuːt)*, compact* (ˈkɒmpækt~kəmˈpækt)*, console* (ˈkɒnsəʊl~kənˈsəʊl)*, construct* (ˈkɒnstrʌkt~kənˈstrʌkt)*, impact* (ˈɪmpækt~ɪmˈpækt), *object* (ˈɒbdʒɪkt~əbˈdʒɛkt), *record* (ˈrɛkɔːd~rɪˈkɔːd), *present* (ˈprɛzənt~prɪˈzɛnt).	I asked students to put the stress on different syllables and then discussed the meaning differences with them.
10 mins.	**Homework** Students were asked to listen to three minutes of BBC news, produce a transcript of it and hand it in the next week. Some of the previous homework assignments were discussed by the students and the instructor explained his idea about them.	Instructor received feedback from previous homework assignments of the students.

Control group, week 13

Time	**Opening**	**Monitor/Feedback**
30 mins.	Same as Experimental group.	Same as E group.
30 mins.	**Activities** Same as Experimental group.	Same as E group.
20 mins.	**Practice in interpreting: Role playing:** Students were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of a tourist who has come to have a visit from Isfehan in Iran. The other students were instructed to interpret him by turn in each group and group members could consult with each other.	I moved around the class and helped students when needed.
10 mins.	**Homework** Same as Experimental group.	Same as E group.

Experimental group, week 14

Time	**Opening**	**Monitor/Feedback**
30 mins.	Instructor recapitulated the main points of previous discussion. The point of *sense* in interpreting was explained. Sense is: 1. something to be grasped, comprehended, known, 2. as an interpretation that may be given to a group of words forming a passage, 3. the meaning of such a group as a functional unit, 4. general or essential meaning of an utterance, 5. meaning that is rational or intelligible.	I asked questions based on the discussions to get feedback to see how much they followed the points.
30 mins.	**Activities** Students were divided into five groups (each group 3 students). They were asked to listen to audio extracts which were from the BBC. Each extract was for 30 seconds and the groups were given one minute interval to interpret it. Each time one member of the group could speak and sometimes they could consult with each other before interpreting. **Example**: *So how did it come to write such an old story, having covered it once before? The Media Blog readers think they know they answer. John Self wrote: "I think I know why this happened. This story was in the 'most read' list on the BBC News site last week (it happens occasionally with 'quirky' stories from years ago, as email links spread in their unpredictable way, and then people see it on the Most Read list and click it, thus enhancing the effect). I guess a lazy Mail hack clicked the story, and decided to cover it without looking at the date at the top."*	I moved around the class and helped students when needed.
20 mins.	**Prosody training** Marking syllables: I played a list of words/sentences and have learners count syllables and mark which syllables are stressed. Examples: **Words:** *exports, fastest annual, Prime Minister, revive, shipments, significantly, exporters, expensive overseas, increasingly, profitability, resilient.* **Sentences:** *The misery index is at a three-year low. A wave of downsizing has eliminated thousands of jobs. The market will have a soft landing. The senator said that only in some supply-side fantasy-land could the budget be balanced at the expense of health and education. This is a one-time opportunity for big players. Mutual funds are spawning new shareholders. The stock exchange provides auction agency market representation, transparency, and price discovery. Equities trade locally but gold follows the sun.*	I asked students to mark the syllables on work sheet and hand these in to me to assess their work. I asked some of the students to come in front of class to read the words/sentences aloud, again to see how much in practice they were able to produce the correct stress patterns of words and sentences.
10 mins.	**Homework** Students were asked to listen to three minutes of BBC news, produce a transcript of it and hand it in the next week. Some of the previous homework assignments were discussed by the students and instructor explained his idea about them.	Instructor received feedback from previous homework assignments of the students.

Control group, week 14

Time	**Opening**	**Monitor/Feedback**
30 mins.	Same as Experimental group.	Same as E group.
	Activities	
30 mins.	Same as Experimental group.	Same as E group.
20 mins.	**Practice in interpreting: Role playing** Students were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of president of IRIB who has come to tell his reasons of censorship in Iran. The other students were supposed to interpret him by turn in each group and group members could consult with each other.	I moved around the class and helped students when needed.
	Homework	
10 mins.	Same as Experimental group.	Same as E group.

Experimental group, week 15

Time	**Opening**	**Monitor/Feedback**
30 mins.	Instructor recapitulated the main points of previous discussion. The following topics were explained and discussed. **Knowledge**: 1. Knowledge base 2. Preparations **Understanding:** 1. Reception 2. Meaning **Transfer:** 1. Plausibility 2. Acceptability of form 3. Acceptability of content 4. Interpreting technique **Product:** 1. Linguistic expression 2. Equivalence 3. Presentation.	I asked questions based on the discussions to get feedback to see how much they followed the points.
30 mins.	**Activities** Students were divided into five groups (each group 3 students). They were asked to listen to Audio extracts which were from BBC. Each extract was for 30 seconds and the groups were given one minute interval to interpret it. Each time one member of the group could speak and sometimes they could consult with each other before interpreting. **Example:** *For BBC news editors, Twitter and RSS readers are to become essential tools, says Horrocks. Aggregating and curating content with attribution should become part of a BBC journalist's assignment; and BBC's journalists have to integrate and listen to feedback for a better understanding of how the audience is relating to the BBC brand. Following the creation of a social media editor post in October, this marks another fundamental change in the Beep's attitude towards social media.*	I moved around the class and helped some students when they needed help.
20 mins.	**Prosody training** Marking syllables: I played a list of words/sentences and have learners count syllables and mark which syllables are stressed. Examples: **Words:** *broadcaster, cautious, social media, impact, social media, wider audience, opposite direction, journalism, multimedia newsroom, internationally, news organizations, professionalized.* **Sentences:** *The aim of counter-cyclical policy is to dampen the business cycle. It's hard to wring inflation out of the economy when you have entrenched inflationary expectations. The rational expectationist school of thought believes people will anticipate and counteract policy moves. The trade deficit is due to an overly strong dollar. The tax cut is producing an economic stimulus but much of it is going overseas. We have a ballooning merchandise deficit.*	I asked students to mark the syllables on work sheets and hand these in for me to assess their work. I asked some of the students to come in front of class to read the words/ sentences aloud, again to see how much in practice they were able to produce the correct stress patterns of words and sentences.
10 mins.	**Homework** Students were asked to listen to three minutes of BBC news, produce a transcript of it and hand it in the next week. Some of the previous homework assignments were discussed by the students and instructor explained his idea about them.	Instructor received feedback from previous homework assignments of the students.

Control group, week 15

Time	**Opening**	**Monitor/Feedback**
30 mins.	Same as Experimental group.	Same as E group.
30 mins.	**Activities** Same as Experimental group.	Same as E group.
20 mins.	**Practice in interpreting: Role playing** Students were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of the minister of foreign affairs who has come to tell his reasons about diplomacy toward foreigners in Iran. The other students were supposed to interpret him by turn in each group and group members could consult with each other.	I moved around the class and helped students when needed.
10 mins.	**Homework** Same as Experimental group.	Same as E group.

Experimental group, week 16

Time	**Opening**	**Monitor/Feedback**
30 mins.	Instructor recapitulated the main points of previous discussion. The semantic structure in interpreting was discussed. It was pointed out that when the speaker is producing a discourse, 1. he communicates *what* he is talking about, 2. he communicates something *about* the subject of the communication in each utterance in the form of the utterance *rheme*, which amplifies the hearer's knowledge of the topic of discourse; 3. he conveys an *attitude* and a *value judgement* about the subject of communication, either explicitly or implicitly, on the scale of evaluation from positive through neutral to negative; 4. he establishes his attitude or *relationship to the hearer*(s) in the way he formulates the propositions (pragmatic factor).	I asked questions based on the discussions to get feedback to see how much they followed the points.
30 mins.	**Activities** Students were divided into five groups (each group 3 students). They were asked to listen to audio extracts which were from the BBC. Each extract lasted 30 seconds and the groups were given one minute intervals to interpret it. Each time one member of the group could speak and sometimes they could consult with each other before interpreting. **Example:** *A new U.N. report says the earthquake in Haiti and heat waves in Russia made 2010 one of the deadliest years in at least two decades. The report issued by the Belgium-based Center for Research on the Epidemiology of Disasters finds nearly 300,000 people lost their lives in more than 370 natural disasters last year. The report notes most of the deaths last year resulted from the devastating earthquake in Haiti, which killed nearly one-quarter of a million people. The second deadliest disaster occurred in Russia where a heat wave in the summer of 2010 caused about 56,000 fatalities in the capital, Moscow.*	I moved around the class and helped students when needed.
20 mins.	**Prosody training** Marking syllables: I played a list of words/sentences and have learners count syllables and mark which syllables are stressed. Examples: **Words:** *a political scientist, outlook, a tumultuous week, precarious, protestors, demanding, entire overhaul, uprooting, excessive influence, corruption, anti-government, escalated, finance ministry, state enterprises, ministry of interior.* **Sentences:** *You can't separate stabilization policy from international trade policy. From fine-tuning of the economy we have moved to a policy of coarse-tuning. A hiccup in interest rates sent a shudder through the market. We are entering an age of mega-competition. Japan needs to make its labor market amenable to entry-level and mid-course movement. The Japanese government's Jusen bailout plan will be costly.*	I asked students to mark the syllables on work sheets and hand these in for me to assess their work. I asked some of the students to come in front of class to read the words/sentences aloud, again to see how much in practice they were able to produce the correct stress patterns of words and sentences.
10 mins.	**Homework** Students were asked to listen to three minutes of BBC news, produce a transcript of it and hand it in the next week. Some of the previous homework assignments were discussed by the students and instructor explained his idea about them.	Instructor received feedback from previous homework assignments of the students.

Control group, week 16

Time	**Opening**	**Monitor/Feedback**
30 mins.	Same as Experimental group.	Same as E group.
30 mins.	**Activities** Same as Experimental group.	Same as E group.
20 mins.	**Practice in interpreting: Role playing:** Students were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of a soccer player who has come to play in one of the teams in Iran. The other students were instructed to interpret them by turn in each group. Group members could consult with each other.	I moved around the class and helped students when needed.
10 mins	**Homework** Samen as experimental group.	Same as E group.

Experimental group, week 17

Time	**Opening**	**Monitor/Feedback**
30 mins.	Instructor recapitulated the main points of previous discussion. The following points were discussed. These were: need for confidentiality, debriefing, terminological follow-up output review (e.g., recording), further training.	I asked questions based on the discussions to get feedback to see how much they followed the points.
30 mins.	**Activities** Students were divided into five groups (each group 3 students). They were asked to listen to audio extracts from the BBC. Each extract lasted 30 seconds and the groups were given a one-minute interval to interpret it. Each time one member of the group could speak and sometimes they could consult with each other before interpreting. **Example:** *What will be the biggest story in 2010? Political convulsions in Iran, with the possibility of President Mahmoud Ahmedinejad being forced out of office and the Supreme Leader, Ayatollah Khamenei, forced to turn to former President Rafsanjani and other "moderates" to save the revolution. Give us one name to watch in the coming year? Internationally, the former first lady of the Philippines, Imelda Marcos, who is trying to make one of the most unlikely comebacks in the country's political history.*	I moved around the class and helped students when needed.
20 mins.	**Prosody training** Identification of content and function words: I asked learners to underline content words in sentences when audio extracts were played for the students. **Example:** *What will be the biggest story in 2010? The biggest focus in defence will be on whether the strategy agreed by the US and its Nato allies in Afghanistan works. The main challenges will be accelerating the training and mentoring of the Afghan National Army and police, and helping the Afghan government to try to ensure that its people have the security they long for. Back at home, all eyes will be on the strategic defence review, and how a new government sees the role of Britain and its Armed Forces on the global stage - and how much of that role the country can afford.*	I asked students to mark the content and function words and hand in their answer sheets to assess their work.
10 mins.	**Homework** Students were asked to listen to three minutes BBC news, produce a transcript of it and hand it in the next week. Some of the previous homework assignments were discussed by the students and the instructor explained his idea about them.	Instructor received feedback from previous homework assignments of the students.

Control group, week 17

Time 30 mins.	**Opening** Same as Experimental group.	**Monitor/Feedback** Same as E group.
30 mins.	**Activities** Same as Experimental group.	Same as E group.
20 mins.	**Practice in interpreting** **Role playing:** Students were divided into five groups (each consisted of 3 students). Then two representatives of two groups were asked to play the role of the president of Arak University who has come to clarify his reasons of raising the tuition for students in Iran. The other students were instructed to interpret him by turn in each group. Group members could consult with each other.	I moved around the class and helped students when needed.
10 mins.	**Homework** Same as Experimental group.	Same as E group.

Experimental group, week 18

Time	**Opening**	**Monitor/Feedback**
30 mins.	Instructor recapitulated the main points of the previous discussion. The following points were discussed. They were: environmental factors, inter-personal/social factors, linguistic features, task-related factors, time factors in interpreting.	I asked questions based on the discussions to get feedback to see how much they followed the points.
30 mins.	**Activities** Students were divided into five groups (each group 3 students). They were asked to listen to audio extracts from the BBC. Each extract lasted 30 seconds and the groups were given a one-minute interval to interpret it. Each time one member of the group could speak and sometimes they could consult with each other before interpreting**.** **Example:** *Give us one name to watch in the coming year? General Sir David Richards, who replaced General Sir Richard Dannatt as Chief of the General Staff in August 2009, becoming the professional head of the British Army at one of its most testing times in decades. He has come out fighting for the campaign in Afghanistan, seeking to explain it to an increasingly sceptical public, and helping to put the MOD on a war footing.*	I moved around the class and helped students when needed.
20 mins.	**Prosody training** Identification of content and function words. I asked learners to underline content words in sentences when audio extracts were played to them. **Example:** *Who would you most like to interview next year? General Stanley McChrystal, the overall Nato commander in Afghanistan. He warned in October 2009 that the situation in Afghanistan was serious, that time was running out, and that the campaign had been under-resourced and under-coordinated in the past. He said that protecting the Afghan people was key. Will he - and most crucially, they - feel that has been achieved, one year on?*	I asked students to mark the content and function words and hand in their answer sheets to assess their work.
10 mins.	**Homework** Students were asked to listen to three minutes of BBC news, produce a transcript of it and hand it in the next week. Some of the previous homework assignments were discussed by the students and instructor explained his idea about them.	Instructor received feedback from previous homework assignments of the students.

Control group, week 18

Time	**Opening**	**Monitor/Feedback**
30 mins.	Same as Experimental group.	Same as E group.
30 mins.	**Activities** Same as Experimental group.	Same as E group.
20 mins.	**Practice in interpreting** Students were divided into five groups (each consisted of 3 students). One Australian who was working in Arak Petroleum was invited to talk about his interest in working in Iran. The students were instructed to interpret him.	I moved around the class and helped students when needed.
10 mins.	**Homework** Same as Experimental group.	Same as E group.

Appendix 3.2. Information about the TOEFL test used

The Test of English as a Foreign Language (TOEFL) measures the ability of nonnative speakers of English to use and understand English as it is spoken, written and heard in university settings. The TOEFL test measures the ability to integrate the four English skills (speaking, listening, writing, reading). It is a standard test with 140 multiple choice questions and one topic to write about so that the testees can show their writing skill, as indicated in the table below.

Section	**Time limit**	**No. of questions**
Reading comprehension	55 minutes	50
Listening	40 minutes	50
Structure	25 minutes	40
Writing	30 minutes	1 topic

Appendix 3.3. Sample questions of post-test test for control group and experimental group

Name: _____ Last name: _____

Student number: _____

I. Elaborate on the following points as completely as possible.
   1. Differentiate different types of interpreting.
   2. Explain codes of conduct and practical aspects in interpreting.
   3. Elaborate on determining factors affecting quality in interpreting.
   4. Explain the required conditions of interpreting performance.
   5. Clarify the point of sense in interpreting.

II. Interpret the following ten 30-second extracts. There will be a 2-minute interval between the extracts.

Sample extract

Snow and ice dominated the headlines for more than a week at the start of the year, as Britain shivered in the longest cold spell for almost 30 years. Thousands of schools closed, buses, trains and planes were delayed, and power supplies failed as winter chaos reigned. On 12 January, a devastating earthquake struck Haiti, claiming 230,000 lives and leaving more than one million people homeless. In the UK, Jonathan Ross announced he was leaving the BBC after 13 years. The corporation's highest paid star insisted his decision was not financially motivated.

Appendix 3.4. The three audio extracts which were evaluated by raters

1. The market is an institution in which wealth acquires power. Wealth controls what gets produced and who gets it. So, for example, if a rich person wants a Mercedes Benz to be produced and shipped to him and you want a Mercedes Benz produced and shipped to you, guess what? Your wish has no power because you don't have any wealth.

2. In an all-out attack against a trapped and mostly defenseless civilian population, Israeli air raids have pounded Gaza for eight days. A thousand wounded and the Palestinian death toll at 139, more than half of these deaths civilian, including more than 22 children dead, another 180 wounded as well as three Palestinian journalists who have been killed by Israeli fire while in their vehicle. The Israeli death toll is at five.

3. Are the climate deniers right? Are some scientists colluding with the government to hide the truth about the climate change? Yes, according to top British scientist Kevin Anderson. But not the scandal you have heard about. Top scientists and government reports won't tell you, we are heading towards catastrophic climate change. Emissions are skidding out of control, leading us to a world perhaps six degrees hotter on average, much faster than anyone thought possible. Why doesn't the public know?

Appendix 3.5. Model interpretation for the three extracts evaluated

1. موسسه بازاریابی جایی است که ثروت قدرت ایجاد میکند. ثروت تولید را کنترل میکند وهمچنین کسی که ان را می گیرد. برای مثال اگر ثروتمندی بخواهد که یک مر سدس بنز تولید شود و برای او ارسا ل شود و شما اگر بخواهید که یک مرسدس بنز تولید شود و برای شما ارسال شود. حدس بزن چه می شود؟ درخواست شما قدرت اجرایی ندارد چونکه شما ثروتمند نیستید.

Moaseseh bazaryabi jaei ast ke servat ghodrat eijad mykonad. Servat tolid ra kontorol mykonad va hamchenin kasi ke an ra mygirad. Baraye mesal agar servatmandi bekhahad ke yek mersedes benz tolid shaved va baraye u ersal shaved va shoma agar bekhahid ke yek mersedes benz tolid shaved va baraye shoma ersal shaved. Hads bezan che myshavad? Darkhaste shoma ghodrate ejraei nadarad chonke shoma servatmand nistid.

2.ایا انهایی که تغییر در اب و هوا را رد می کنند درست می گویند؟ بعضی از دانشمندان و دولت این حقیقت که اب و هوا در حال تغییر است مخفی می کنند. بله، بر اساس گفته دانشمند برجسته انگلیس کوین اندرسون است. اما رسوایی که شما در مورد ان چیزی نشنیده اید. دانشمندان برجسته و گزارش دولت چیزی به شما نخواهد گفت. ما به سمت تغییر وحشتناک اب و هوایی می رویم. ماشین ها غیر قابل کنترل میشوند، ما را به ند که شاید شش درجه گرمتر از حد معمول است. خیلی سریعتر از ان چیزی که هر کسی جها نی می بر فکر می کرد. چرا عامه مردم این مسئله را نمی دانند؟

Aya anhaei ke taghiyr dar ab va hava ra rad mykonand dorost mygoyand? Bazi az daneshmandan va dolat ein haghighat kea b va hava dar hale taghiyr ast makhfi mykonand. Bale, bar asase goftye daneshmand bar jastye englis Kevin Anderson ast. Amma rosvaei ke shoma dar morede an chizi nashnideheid. Daneshmandane bar jaste va gozaresh dolat chizi be shoma nakhahad goft. Ma be samte taghiyre vahshatnake ab va havaei myravim. Mashinha ghire ghabele control myshavand, ma ra be jahani mybarand ke shayad shesh daraje garmtar az hadde mamol ast. Khili saritar az an chizi ke har kasi fekr mykard. Chera ammye mardom ein masala ra namydanand?

3.و حالا یک حمله عجیب بر علیه مردم بی دفاع و به دام افتاده. نیروی هوایی اسرائیل به مدت هشت روز به غزه حمله کرده است. هزاران نفر مجروح شدند و امار کشته های فلسطینیان یک صد و سی نه (139) نفر بودند ونصف بیشتر انها شهروندان بی دفاع می باشند که بیست و دو (22) نفر انها بچه ها بودند. یکصد و هشتاد (180) نفر دیگر زخمی شده اند. همچنین سه (3) روز نامه نگار فلسطینی توسط اتش اسرائیلیها در ما شینهایشان کشته شدند. امار کشته های اسرائیلی ها پنج (5) نفر است.

Va hala yek hamlye ajib bar alyhe mardome bidefa va be dam oftadeh. Niroye havaei esraeil be moddate hasht rooz be ghazeh hamle kardeh ast. Hezaran nafar majroh shodand va amare koshtehhaye felstininan yek sad o si o noh nafar boodand va nesfe bishtare anha shahrvandane bidefa mybashand ke bisto do nafare anha bacheh ha boodand. Yek sad o hashtad nafare digar zakgmi shodehand. Hamchenin se rooznameh negare felestini tavasaote atashe esraeiliha dar mashinhayeshan koshte shodand. Amare koshteh haye esraeiliha panj nafar ast.