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Journal of Language Horizons

Aims and Scope

Considering the National Master Plan for Science and Education in the country and the necessity of *localizing* the humanities, this journal welcomes English articles contributing to this aim.

Aims of this journal include but are not limited to:

- Promoting scientific and professional knowledge of researchers in the below mentioned areas.

- Sharing of the findings of researchers in the mentioned fields.

- Promoting general and professional knowledge necessary for learning English as an international language among Iranians and international interaction in the future.

- Promoting Iranian culture along with the English.

The main focus of the Journal is on research conducted on language learning and teaching. We are in particular interested in research papers on L2 education (in particular EFL/ESL), in a variety of levels including school level, university level, institute level, etc. The Journal welcomes papers on teaching and learning any component of language including skills and sub-skills, as well as sociolinguistics, psycholinguistics, discourse and pragmatics, TESL or TEFL, Teaching Persian to Speakers of Other Languages (AZFA), language evaluation/testing, language and culture, teaching language for specific purposes, teaching methodology, English and Persian literature, language studies, translation, and linguistics but written only in English.

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REFERENCES

All in-text citations must be listed in full in the reference list at the end of each article following the specifications of the *APA* manual and all references listed must be cited somewhere in the text. Begin the reference list on a separate page entitled "References" and double-space it throughout. Each entry must include the author's name, co-authors (if any), publication date, and title of work. For a journal article, also provide the name of the journal, volume number, and page numbers for the article. For an article in an edited volume, list the editor's name, title of the collection, and page numbers of the article. For a book or monograph, list the edition, volume number, series, place of publication, and name of publisher. Punctuate and capitalize as in the following examples:

Book

Brown, G., & Yule, G. (1989). *Discourse analysis*. Cambridge University Press.

Journal article

Bacon, S. M., & Finnemann, M. D. (1990). A study of the attitude, motives, and strategies of university foreign language students and their disposition to authentic oral and written input. *The Modern Language Journal, 74*, 459-473.

Journal article with volume number

Lee, M-B. (2002). A closer look at language learning strategies and EFL performance. *Foreign Languages Education, 10* (1), 115-132.

Article in a book

Dechert, H. (1983). How a story is done in a second language. In C. Faerch & G. Kasper (Eds.), *Strategies in inter-language communication* (pp. 175-195). Longman.

Journal Article with DOI

Paivio, A. (1975). Perceptual comparisons through the mind's eye. *Memory & Cognition*, *3*, 635-647. http://doi.org//10.1037/0278-6133.24.2.225

Journal Article without DOI (when DOI is not available)

Becker, L. J., & Seligman, C. (1981). Welcome to the energy crisis. *Journal of Social Issues*, *37*(2), 1-7.

Hamfi, A. G. (1981). The funny nature of dogs. *E-journal of Applied Psychology, 2*(2), 38-48. http://www.ojs.lib.swin.edu.au/index.php/fdo

Encyclopedia Articles

Brislin, R. W. (1984). Cross-cultural psychology. In R. J. Corsini (Ed.), *Encyclopedia of psychology* (Vol. 1, pp. 319-327). Wiley.

Developmental genetics. (2005). In *Cambridge encyclopedia of child development*. http://www.credoreference.com.library.muhlenberg.edu:80/entry/cupchilddev/developmental_genetics

Reference citation in text

Direct citation 1

She states, "the 'placebo effect' ... disappeared when behaviors were studied in this manner" (Miele, 1993, p. 276), but she did not clarify which behaviors were studied.

Direct citation 2: Fewer than forty words

Lee (1999) found that "The EAP writing curriculum incorporate reading and analysis of major academic journal articles in the specific field to identify macro-level organization an obligatory 'moves' in conjunction with writing practice." (p. 21)

Direct citation 3: More than forty words

Miele (1993) found the following:

The "placebo effect," which had been verified in previous studies, disappeared when behaviors were studied in this manner. Furthermore, the behaviors were never exhibited again, even when reed rings were administered. Earlier studies were clearly premature in attributing the results to a placebo effect. (p. 276)

One work by two authors

- Smith and Takamoto (1997) argued that. ...

- In recent study of SLA (Smith & Takamoto, 1997) ...

One work by multiple authors: use et al.

- First citation: Jones et al. (1997) found that...

- in a recent study of second language acquisition (Jones et al, 1997)....

- Subsequent citations: Jones et al. (1997) further argued that. ...

- In a recent study of second language acquisition (Jones et al., 1997)...

One work by multiple authors, more than 6

- First citation: Dresler et al. (1992). Showed that...

- In a recent study of second language acquisition (Dresler et al., 1992)...

Multiple works: Arrange in alphabetical order

Previous research (Lass, 1992; Meyer & Sage, 1978, 1980; Nichols, 1987a, 1987b; Oats et al., 1973)...

For works not included in the above examples refer to *Publication Manual of the American Psychological Association* (6th ed.).

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Since the Journal uses a double-blind review system, it is essential that all author identifying information be removed from the paper and that author information should only be provided in the title page. In case author's work is mentioned in the manuscript, replace the name with *Author* in the the text. In other word, there should be no trace of the author in the text.

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Contents

The Effect of Syntactic Awareness-Raising Techniques on Iranian Intermediate EFL Learners' Written Narrative Task Performance

Research Article

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Abstract

Attention to language awareness is prominently increasing with the passage of time due to the effects different awareness-raising techniques might have on language learners' performance. The present study specifically focused on the effects of syntactic awareness-raising techniques on Iranian intermediate EFL learner's written narrative task performance.

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The participants in the study included 40 intermediate learners whose initial homogeneity in terms of language proficiency was assessed via a General English Test. They were further randomly assigned to one control group and one experimental group, each comprising 20 participants. The amount of instructional time was 17 sessions, during which the participants in the experimental group received syntactic awareness-raising techniques through 'story grammar elements' and 'word order correction'. Right after the treatment, a post-test comprising a written narrative task was administrated. Data analysis results demonstrated that the experimental group which received the syntactic awareness-raising techniques outperformed the control group in retelling short stories in written form. The findings of the current study highlight the contribution of language awareness to the improvement of proficiency in EFL learners and pave the way for its inclusion in language teaching syllabuses.

Keywords: narrative task, written task, story grammar element, language proficiency, word order correction

Introduction

Tasks have been documented to play a significant role in language learners' oral and written performance. Improving proficiency in language has been sought to be highly related to application of tasks (Kuiken & Vedder, 2012). According to Ellis (2003), plenty of reasons can be found in task performance indicating the EFL learners' skill to apply their knowledge in authentic communication. This conceptualization highlights the substantial role of tasks in language teaching research as well as pedagogy. Learners may not be successful to develop the proficiency required for effective communication unless they are given opportunities to practice such samples, which are elicited by either oral or written 'tasks' (Ellis, 2003). Narration of a story in spoken and written forms is among the tasks which occur in response to some kinds of stimulus including either a picture strip or a short film.

Storytelling whether oral or written leaves back effects on overall language proficiency (Berns et al., 2013). Research carried out by Sullivan and Brown (2015) revealed that 10- to16-year-old learners whose reading was just for pleasure improved much better in some areas as spelling, vocabulary, and math, compared to those who were less inclined to read. According to Paul (2012), reading a story aloud helps improving grasp of syntax and sentence structure. Samantaray (2014) described storytelling as a technique which attracts learners' attention and concentration. Accordingly, based on this technique, it is feasible to encourage prediction and expectation of events. As learners find an opportunity to predict the consequences of an event, their comprehension, enjoyment, and happiness are provoked. Thus, learners make significant improvements in their language use if they apply this technique in language learning (Samantaray, 2014). Thus, the environment in the classroom is changed into a productive one along with plenty of learner's participation, concentration.

Stories are supposed to provide a bulk of information about learners' written language skills. Pray (2005) thinks of narrative tasks as useful assessment tools to assess language learners who are making attempts to learn, read, and write. On the other hand, to recognize the level of communicative competence in learners and their cognitive academic language proficiency, narrative samples are among the best measurement devices (Ortiz, 1997).

In narratives, compared to daily conversations, the learners require more complex language and higher level thinking. So as to raise the learners' awareness of the event, the vocabulary must be explicit, pronoun references are required to be clear, descriptive language must be used and the storyteller must tell the story in a logical sequence (Petersen et al., 2010). While there are various ways to provoke learners' consciousness of the structure of the language, in the present study, it was raised by means of two techniques; 'story grammar elements' and 'word order correction'.

Technically speaking, 'Story' refers to a narrative spoken or written discourse, while 'grammar' is usually described as the study of words. Stein and Glen (1979) refer to 'story grammar' as the different elements or parts of a story. The goal of 'story grammar elements' awareness in the present study is to explicitly teach the learners to recognize story grammar elements including the plan, attempt, characters, setting, initiating events, internal response, etc. within stories, and to instruct them to incorporate accurate story elements into the rewritten stories.

As a system of language, grammar is concerned with word order and morphology. Word order is defined as an understanding of how words in a language come close to each other to create logical sentences (Tunmer, 1989). Languages are different regarding the distribution of words within phrases and the ways phrases distributions occur relative to each other within sentences. Whereas there are various constructions of word order such as Subject-Verb-Object (SOV) in world languages, the primary word order in English is Subject-Verb-Object (SVO). Selecting a word form consistent with its grammatical role in a sentence is the second subdivision which is considered in syntactic awareness. Researching into different languages reveals that either the inflection of a word based on grammatical rules (e.g. agreement in tense, aspect, number, gender and case) can make the form or the word syntactic status in a sentence can construct it.

Researching into educational EFL contexts such as Iran reveals the fact that after several years of language studies, learners have terrible mistakes in oral and written production although most of the class time is allotted to teaching grammatical points (Behroozi & Amoozegar, 2014). The problem lies in the fact that such contexts suffer from the deficiencies which mainly stem from the methodology of the teachers set aside the material the students are provided with, the shortage of time and the degree of exposure to language outside the classroom (Dolati & Mikaili, 2011). To deal with the problem which might originate from the methodology of the teachers, the researcher made attempts to

find ways of helping learners improve their written narrative proficiency through raising their syntactic awareness.

To the best knowledge of the researcher, few studies have been done in Iranian context investigating the impact of syntactic awareness raising techniques on intermediate EFL learners' written narrative task performance. So, in this study, the researcher intended to fill this gap and explored this under-investigated area by studying the impact of syntactic awareness raising techniques on written narrative task performance of intermediate EFL learners in Iran.

To test the research hypothesis, i.e., syntactic awareness raising significantly affects Iranian intermediate EFL learners' written narrative task performance, the researchers tried to address the following research questions:

1. Does syntactic awareness improve fluency in Iranian Intermediate EFL learners' written performance?
2. Does syntactic awareness improve accuracy in Iranian Intermediate EFL learners' written performance?
3. Does syntactic awareness improve complexity in Iranian Intermediate EFL learners' written performance?

Literature Review

Nowadays, language awareness (LA) is widely believed to be an important dimension in language learning, language teaching and language use. Research in this area is being flooded with researching the effects of awareness studies on different components of language. In the general field of cognitive psychology, conscious and unconscious processes and the notion of interface in second language development have been for long the center of attention. A number of such empirical studies were surveyed by Long and Robinson (1998) and Ellis (1990). Their findings illustrated that consciousness learning is likely to contribute to successful development in language learners.

Language awareness has been regarded as one of the most important inclination of research in language education since the early 1980s. The relationship between awareness and learning is one of the major topics which has attracted many researchers studying on the area of language pedagogy. At the very beginning, the focus of language awareness movement was language awareness of learners. The main justification for the movement was that the learners whose analysis and description of language is accurate are possibly more efficient users of the language (Andrews, 2008). Thus, performance in using the language to a large extent depends on explicit knowledge of formal aspects of language.

Awareness and Second Language Development

Although some researchers as Krashan and Seliger (1976) believed learning is essentially unconscious, new trends after decline of behaviorism concentrate

on the importance of consciousness in language learning. This recognition has emphasized the significant role of awareness in learning the language. Skehan (1996) suggest that learners' previous knowledge is activated by focus on form instruction and that it assists them make a link between their linguistic knowledge and the language they are going to use communicatively. Focus on form instruction develops learners' awareness of grammar structure difficult to understand through formal instruction of language alone.

At this point, we should return to Long's original consideration (1991) that language instruction based on task is notably appropriate for focus on form. Crookes and Gass (1993) in a numbers of surveys and reports have discussed that success in target language comprehension and production to a large extent depends on task performance. They have emphasized how users of language through focus on form activities can improve their proficiency in language.

Development of task-based language teaching is among controversial topics of discussion which encompass the tasks that are likely attractive with regard to consideration of awareness and learning in addition to the methodology in which they are implemented. Loschky and Bley-Vroman (1990), for instance, recommends development of closed communicative tasks, successful completion of which needs attending to the target grammatical knowledge. Communicative grammar tasks are among the ones advocated by Fotos and Ellis (1991). This kind of tasks, which involves mechanisms to facilitate acquisition, tries to raise the learner's consciousness about the grammatical properties of the second language.

The previous studies done on the application of awareness techniques do not cover all areas. Some studies have concentrated on the role of syntactic awareness and learning strategies on language (Hong-Nam & Leavell, 2006) but less is known about how syntactic awareness techniques can influence the students' ability in narrating the task in written form.

Tong et al. (2014) made an attempt to investigate the possible association between two metalinguistic skills, syntactic and morphological awareness and reading comprehension. They included separate and combined measures of each in the reading comprehension texts. The results of their findings revealed that the relationships among syntactic awareness, morphological awareness, and reading comprehension were greatly under the influence of the tasks which were used to measure the first two.

Second Language Acquisition researchers have, to some extent, downplayed the crucial relevance of the semantico-syntactic awareness features that might animate learners' behavior during task implementation. The contributions of socially-oriented factors to task performance, the importance of learner factors , and the significant role given to internalization and scaffolding in the Vygotsky's Zone of Proximal Development (ZDP) to complete tasks (Guk & Kellogg, 2007) reveal that there is a need to pay attention to this less-trodden area as to how providing syntactic awareness can influence the learners' involvement in written task performance. Altogether, a number of studies have concluded pri-

ority of task performance in terms of providing opportunities for both target language comprehension and production.

Syntactic Awareness

The skill to manage and reflect on the grammatical structure of language is referred to as syntactic (or grammatical) awareness. This includes an understanding of how words of one language sit next to each other to create sentences. According to Koda and Zehler (2008), there are two major subdivisions for this process, the first of which is referred to as word order. Word order correction tasks include irregularity in the word order which has to be resolved by rearrangement (e.g. "hits the dog Jane"). Selection of a word form consistent with its grammatical role in a sentence is the second subdivision which is involved in syntactic awareness. Gaux and Gombert (1999) consider it as morphosyntactic awareness. One group of tasks in this regard is grammatical correction tasks, where the learner has to repair a morphological or grammatical deviation in a sentence (e.g. "boys makes mistakes"). Altogether, syntactic awareness is classified under metalinguistic skills due to the prominent attention it gives to the *structure* rather than the *meaning* of a sentence. In the present study, syntactic awareness is realized by means of two techniques: story grammar elements and word order correction.

Story Grammar Elements. More complex language and higher level thinking than what is required for daily conversations are needed in Narratives. To illustrate an event in details for the person away from that event, the storyteller must use clear pronoun references, explicit vocabulary and descriptive language, as well as logical sequence in the short story (Petersen et al., 2010). The typical forms to tell the stories follow the following inclinations: story grammar structure, problem–resolution, goal-oriented (Stein & Glenn, 1979). The framework proposed by Stein and Glenn's for story grammar structure defines the most noticeable elements in fictional narratives. The characters, setting, initiating event, internal response, plan, attempt, consequence, and resolution are among the elements included in a story. Accordingly, recognition of the elements of narrative text and using them to improve the learners' comprehension of the story should be considered in direct instruction of story grammar elements.

According to Stein and Glenn (1979), the pattern which is followed to construct a large number of stories is story grammar. Causally- and temporally-related- information which is most often found in stories form these patterns (Stein & Glenn, 1979). Based on Cognitive Load Theory, to build a complete story this framework can be used as a schema. Narratives constructed in classroom activities are believed to be acceptable if they follow the organizational pattern known as story grammar (Stein & Glenn, 1979), a framework that outlines the salient elements in fictional narratives. Predictability and comprehensibility of stories can be defined by story grammar. In the school curriculum, narratives usually include complete episodic constructs. When viewed from an

educational perspective (Petersen et al., 2010), narrative proficiency is reflected in macro-structural complexity indicated by story grammar and episodic constructs.

Word Order Correction. From among the techniques which can be used to realize syntactic awareness is word order correction. It means getting togetherness of words to form sentences. Two important subdivisions can be recognized in this process. "Word order" is the first subcomponent. What makes a demarcation line between languages is the way words are distributed within phrases and the way phrases are distributed relative to each other within sentences. The salient word order in English is SVO (Subject-Verb-Object). In world languages, other word order variations such as SOV (Subject-Object-Verb) can be found. Selection of a word is the second subdivision which is involved in syntactic awareness. It should be consistent with its grammatical role in a sentence. In most languages, inflection of a word according to grammatical rules such as agreement in tense, aspect, number, gender or case as well as its syntactic status govern how words are formed and stung together.

Word order correction tasks can be used to assess syntactic awareness (Tunmer, 1989). In such tasks learners are given a sequence of words presented in a nonsensical order and are asked to rearrange these words to form a meaningful sentence. As an example, the teacher might say, "John throwing was stones," and the learner is required to answer "John was throwing stones". In other words, in this kind of task, learners have to rearrange the words presented to them in a jumbled order e.g. "broke the glass Jack". To correct word order at sentence level, understanding is required at the paragraph level. This kind of syntactic knowledge strongly correlates with passage comprehension (Goff et al., 2005).

This study aims at raising the awareness of EFL learners by drawing their attention to some formal aspects of language either implicitly or explicitly. This focus on form inclination highlights overt attention to linguistic elements as they arise incidentally in lessons (Long, 1983). The results of this study, if positively support the hypothesis regarding the effects the syntactic awareness raising techniques might have on learners' written narrative task performance, could pave the way for language teachers' application of these techniques in EFL contexts. It can trigger the inclusion of such techniques in language teaching approaches. Meanwhile the positive results could help students master a better narrative proficiency.

Method
Participants

The current study was carried out in a Foreign Languages (FL) school among male English learners in Kermanshah, a city in the west of Iran. The reason that the researchers carried out the study in a male FL school was that it is against the law to have mixed-sex classes in FL schools in Iran. The participants' language background was Kurdish and Farsi and they were 13 to 18 years old. Af-

ter administering an English Test (PET) to homogenize the students, 40 partici-
pants were selected based on one standard deviation above and below their
mean. Then, the intermediate level participants were randomly assigned to two
groups: one control group and one experimental group.

Teaching Instrument

The selected course book was titled 'Steps to Understanding' written by Hill in
2004. In the book, 120 short stories are placed at four stages: introductory
(750-headwords), elementary (1000 headwords), intermediate (1500 head-
words) and advanced (2075 headwords). This book is at the 750-headword
level, and all the stages are very carefully graded covering not only vocabulary,
but also idioms and grammar. Short stories are nearly 150 words long, and
some of them include one or two words outside the grading. The reason that
the researcher selected a book containing short stories is that short language
samples appropriately indicate the improvement in learners who retell the
short stories (Heilmann et al., 2010).

Testing Instruments

This study made use of 3 measurement instruments to collect information on
the participants' language proficiency level and their ability to narrate short
stories orally. To ensure reliability for scores both in pre-test and post-test, all
performances were scored by two raters and reliability was calculated for two
sets of scores.

   In picture stories, validity is determined in terms of the ambiguity residing
in picture sets. The significance of selecting picture cues which possess signifi-
cant pull for the motive in questions has been frequently indicated (Pang, 2010)
and the need to attend to the cue strength of the different component pictures
is appropriately demonstrated (Brunstein & Maier, 2005). It is not clear how
much the amount of pull and cue strength of picture set should be to ensure
right amount of ambiguity. Accordingly, Ramsay and Pang (2013) emphasized
that there is a need to balance the competing concerns of pull and ambiguity of
short stories. So, picture sets should exhibit moderate ambiguity if validity is to
be ensured. Thus, the researchers negotiated convergent and predictive validity
of the selected picture stories with a panel of three experts to ensure the validi-
ty of the picture stories.

General English Test. A preliminary test of English, "Oxford Placement Test",
was used to determine the proficiency level of the learners and to homogenize
them. As using the three sections of the test was time-consuming and unneces-
sary regarding the purposes of the research, the researcher adopted section
one of the test (i.e., reading and writing). The PET exam is either paper-based
or computer-based. For the purpose of this study, the paper-based one was
used since it was available easily and there was no need to a computer. Also,

the probable difficulties while taking the test online were prevented. Moreover, the paper-based form could be taken in the favorite time and place.

Pre-Test. The pre-test consisted of a picture story and participants were required to rewrite the story based on a set of pictures (9-12) taken from Hill (2004). The pictures were presented to them on paper. It was administered after homogenizing the participants and before the treatment.

Post-Test. A written post-test checking the student's ability to rewrite short stories was administered a week after the treatment to measure the relative effects of syntactic awareness on the learners' ability to narrate short stories in written form. The post-test consisted of a picture story including a set of pictures. The participants were required to rewrite the story based on the pictures. The same as pre-test, the post-test measured the accuracy, fluency and complexity of the samples of language the participants produced in written form.

Procedure

The preliminary English Test (PET) was administered in the first session of instruction to homogenize the students. The course book then was used as the medium of instruction in both control and experimental groups' classes. For the purpose of the present study, the 17-session treatment began following the pretest. The sessions were held twice a week and lasted for 70 minutes, for 8 running weeks. The classes were taught by the same teacher who is a PhD candidate of TEFL.

The control group received the following treatment:

For practice in understanding and writing English, the learners listened to the teacher or the cassette first. Then, they read the story at first in chorus with the voice on the cassette, and then aloud. The meaning of unfamiliar words and the structural points were illustrated to them. Finally, to check the learners' understanding of the short stories and their command of vocabulary and grammar, the learners were required to answer a certain number of exercises such as short answer questions following the short stories.

The experimental group received the treatment on syntactic awareness based on two techniques namely **story grammar elements** and **word order correction**. In the present study, the goals of story grammar elements awareness included explicit instruction to the learners so as to find out story grammar elements within stories and instruct them to suitably place these elements into the short stories they were supposed to rewrite. If in classroom activities, narratives followed the organizational pattern known as story grammar, they would be judged acceptable (Stein & Glenn, 1979).

Thus, in each story, the learners were assisted in distinguishing elements including plan, setting, initiating events, internal response, the characters, attempt, consequence and resolution of the story. After reading each short story,

the learners determined the different elements of story on a piece of paper. Then the teacher himself identified the elements and the learners checked their answers.

To apply the word order correction technique, some sentences in the short stories were chosen then reversed. Sentences which were chosen were no more than five words as this put a heavy burden on the memory of the participant in the study. The participants were required to correct the wrong order of the words comprising the sentences. Every session, a sequence of words was presented in a deviant order and the learners were asked to rearrange these words to form a meaningful sentence. The teacher selected sentences from short stories and wrote them on the board in an illogical order e.g. "John making was beds," and the learners were required to answer "John was making beds".

Measures

To focus on three measures of participants' production in written form (fluency, accuracy, and complexity), their productions were measured both in pre-test and post-test. After that the audiotaped data were transcribed and coded, written proficiency in narrative task was measured in terms of fluency, accuracy and complexity.

Following Bygate (2001) who defined t-unit as "a finite clause together with any subordinate clauses dependent on it" (p. 3), the data were collected. The same as Housen and Kuiken, (2009), fluency was measured by counting the numbers of false starts, repetition, replacement and reformulations in every t-unit. Number and lengths of pauses were not considered in this study as measures of fluency due to the large number of participants. To measure accuracy, the researchers followed Skehan & Foster (2005) for whom accuracy was reflected by calculating incidents per t-units. In other words, higher accuracy in the stories retold was a matter of the number of incidents in every t-unit. Following Kawauchi (2005), complexity was measured by counting the number of words per t-units. In other words, the complexity of the language use depended on the rate of words used in the language. As there are different types of words in the language, the researchers only counted the number of content words including nouns, verbs, adverbs and adjectives.

Data Analysis

Transcription and coding for narrative proficiency in retelling the short stories in written form was carried out after that the language samples were elicited in the pre and post-tests. Then, reliability calculations were carried out to ensure reliability of the pre-test and post-test. To address the three research questions, at first, the differences between the pre-test and post-test scores of the control group and the experimental group were analyzed quantitatively. Then, they were compared through a paired samples t-test.

Results

The first step in data analysis was to check the reliability of scores both in pre-test and post-test. All performances were scored by two raters and then reliability was calculated for two sets of scores. An account of the percentage of agreement between the two raters was used to determine inter-rater reliability. The inter-rater reliability indices taken from two raters yielded coefficients ranging from .91 (written accuracy) to .95 (written fluency) to .95 (written complexity). So, the average percentage of inter-rater reliability for the six measures of fluency, accuracy, and complexity was .93 indicating a high inter-rater reliability.

The inter-rater reliability of the post-test was also an account of percentage of agreement between the two raters. Alpha Cronbach, in this phase, produced coefficients ranging from .93 (written accuracy) to .94 (written fluency) to .95 (written complexity). Therefore, the average percentage of inter-rater reliability for the three measures of fluency, accuracy, and complexity was .94, again, indicating a high inter-rater reliability in post-test.

In this study, four measures of fluency namely "number of repetition", "false starts", "reformulations" and "replacements" were taken into account. All of these components were counted and added and then divided by t-units. For accuracy measurement, the total number of the ungrammatical cases was divided by t-units. So for these two measures, the lower the number, the better the performance. To measure complexity in initial and post performances of language learners, the occurrences of the number of content words per t-units were taken into consideration.

Table 1 provides descriptive statistics to compare the differences between the means of control group and experimental group with regard to written proficiency in narrative task performance. It describes the means of the two groups in pre-test and post-test with regard to fluency, accuracy, and complexity.

Table 1
Means of the Control Group and Experimental Group

Groups	Variables		N	Mean	Std Deviation
Control	Written fluency	Pre	20	6.75	1.2
		Post	20	7.1	1.02
	Written accuracy	Pre	20	11.4	1.09
		Post	20	12.1	1.02
	Written complexity	Pre	20	45.6	5.07
		post	20	44.8	4.50
Experimental	Written fluency	Pre	20	6.95	1.09
		Post	20	10.55	0.99
	Written accuracy	Pre	20	12.55	1.9
		Post	20	16.75	1.91
	Written complexity	Pre	20	45.05	4.47
		Post	20	58.55	5.57

As Table 1 shows, in written narrative task performance, the mean of control group in pretest is 6.75 in written fluency, 11.4 in written accuracy, and 45.6 in written complexity. In post-test, the mean of control group is 7.1 in written fluency, 12.1 in written accuracy, and 44.8 in written complexity.

Table 1 also shows that the mean of experimental group (syntactic awareness) in written narrative task performance in pretest is 6.95 in written fluency, 12.55 in written accuracy, and 45.05 in written complexity. In post-test, the mean of experimental group is 10.55 in written fluency, 16.75 in written accuracy, and 58.55 in written complexity.

In every study, to choose an appropriate statistical test to analyze the data, it is required to evaluate the normality and non-normality of the distributed data. For this purpose in this study, Kolmogorov Smirnov test was used. As Table 2 shows, both in pretest and post-test, Kolmogorov Smirnov test determines that, in the two groups, the level of the significance in fluency, accuracy, and complexity in written narrative task performance is more than 0.05. This shows normality of the distributed data. So, in this study, the parametric tests used for the variables were appropriate.

Table 2
Kolmogorov Smirnov Test to Determine the Normality of the Distributed Data

Groups	Variables		Test	Sig.
Control	Written fluency	Pre	0.81	0.51
		Post	0.94	0.33
	Written accuracy	Pre	0.86	0.44
		Post	1.16	0.13
	Written complexity	Pre	0.63	0.8
		Post	1.43	0.53
Experimental	Written fluency	Pre	0.8	0.53
		Post	1.15	0.13
	Written accuracy	Pre	0.73	0.65
		Post	0.68	0.74
	Written complexity	Pre	0.56	0.9
		Post	0.49	0.97

To test the research hypothesis, i.e. syntactic awareness significantly affects the learners' written narrative task performance, three measures naming fluency, accuracy, and complexity were taken into consideration. Regarding fluency, the numbers of words per t-units were counted. Accuracy was measured by calculating the number of error-free t-units per t-units. Error free t-units were those with no grammatical, lexical or spelling errors. Complexity was measured by calculating the number of sentence nodes per T-units. In this regard, in narratives, the number of sentence nodes, marked by tensed and untensed verbs, was divided by the total number of t-units in the narratives.

To assess the equality of variances for a variable calculated for two groups, Levene's test was used. Table 3 shows the results of Levene's test.

Table 3
Levene's Test of Equality of Error Variances[a]

Variables	F	df1	df2	Sig.
Written fluency	0.00	1	38	0.94
Written accuracy	0.47	1	38	0.49
Written complexity	2.26	1	38	0.14

As the amount of *p*-value in Table 4 is larger than 0.01, it means that the equality of covariance has not been violated. As in all of the cases, the amount of *p*-value is more than 0.05, it means the equality of the variance for all cases.

Table 4
Multivariate Tests

	Value	F	Sig
Wilks` Lambda	0/08	125/95	0/00

The results in Table 4, F (3, 33 = 125.95, p = .00) and Wilks' Lambada equals .05 indicates that there is a significant difference between the control group and experimental group post-test scores.

Table 5
Tests of Between-Subjects Effects

Variables	F	df	Sig
Written Fluency	214.96	1	0.01
Written Accuracy	186.15	1	0.01
Written Complexity	125.03	1	0.01

The results of analysis in Table 5 shows that, for all of the three measures of fluency (F = 214.96, p = 0.01), accuracy (F = 186.15, p = 0.01), and complexity (F = 125.03, p = 0.01), the difference between control group and experimental group is statistically meaningful.

Table 6
Comparing Proficiency in both Control and Experimental Groups

Variables	Group	Mean	Std Error
Written fluency	Control	7.19	0.15
	Experimental group	10.45	0.15
Written accuracy	Control	12.58	0.18
	Experimental group	16.26	0.18
Written complexity	Control	44.42	0.88
	Experimental group	58.92	0.88

A short look at the mean scores of two groups in Table 6 suffices to address the three research questions. The first research question tried to investigate the effect of syntactic awareness raising on learners' fluency in written narrative task performance. It becomes clear that, in the fluency measure, the mean score of the experimental group (10.45) is higher than the control group (7.19), which is an indication of the outperformance of this group to the control group. The second research question investigated the improvement in accuracy of experimental group written narrative task performance. Similarly, the higher mean score of the experimental group's accuracy measure (16.26) shows that this group has outperformed the control group (12.58) in this aspect of performance. The third research question examined the complexity as a measure of participants' language proficiency. The results revealed that experimental group has outperformed control group as the mean of experimental group (58.92) is higher than the mean of control group (44.42). Therefore, the three research questions are positively addressed and the research hypothesis stating that "Syntactic awareness has a significant effect on intermediate EFL learners' written narrative task performance" is confirmed.

Discussion

Oral and written performances in a foreign language as English have always been problematic issues. Achieving an accurate and fluent command of spoken and written language has proved a daunting task for many language learners in EFL contexts such as Iran. To be able to serve as a proficient language speaker and writer, a language learner needs to be both accurate and fluent. Accuracy, fluency and complexity as three measures of language proficiency are required to be taken into consideration in written task performance. The present study was carried out to investigate the effect of one independent variable i.e. syntactic awareness raising techniques, on one dependent variable i.e. intermediate language learners' written narrative task performance.

The findings of current research revealed a meaningful difference between the performance of the experimental group before and after the treatment, as well as between the performance of the experimental group and control group in the post-tests. Participants in the experimental group significantly improved in three aspects of proficiency in written task performance (i.e. fluency, accuracy and complexity).

In current study, the researchers used a different measure of fluency, accuracy and complexity to check the EFL learners' written performance. With regard to fluency, words per t-units were counted. Accuracy was calculated in terms of the number of error-free t-units which occurred in all t-units. In present study, error free t-units were those free from grammatical, lexical or spelling errors. The number of S-nodes per T-units was counted to measure complexity. In this regard, in the narratives, the researchers divided the number of sentence nodes, shown by tensed and untensed verbs, by the whole number of t-units.

Current study results support the notions of "noticing hypothesis" proposed by Schmidt (1990) in that the learners' attention to the features of language emphasized and highlighted by the teachers led to their language improvement. Schmidt (1990) accepts that language learners are not in a position to choose the salient features of the language they encounter. It is the duty of the teacher to give importance to some features and ignore trivial ones. In this research, the researchers attracted the notices of the learners by drawing their attention to "story grammar elements" and " word order correction" which consequently resulted in improvements in language proficiency.

The findings of this study were in line with results obtained by other researchers on narrative performance in which progress in story structure were reported (Cruz de Quiros et al., 2012; Davies et al., 2004; Green & Klecan-Acker, 2012)**.** Particularly, the results of present study supported those of Spencer and Slocum (2010) who revealed explicit instruction of story grammar elements results in the use of those elements in story retells in young learners' narratives.

The results also support the findings of Ruhi (2001), Pica (1985) and Rahimpour (2001) that there is a direct relationship between increasing consciousness and attention to form and planning. In other words, the language learners' production to a large extent depends on his attention to form and planning.

The result obtained from present study is also in line with those of Hayward and Schneider (2000). In their study, they taught 13 English speakers story grammar elements explicitly along with story retell to improve their narrative abilities. In the intervention, they used some techniques including sorting and sequencing story grammar components, reconstructing scrambled stories, identification of missing story grammar components and identification of story grammar elements. Interventions were also incorporated into the regular classroom instruction as central activities. Findings from this study demonstrated that 12 out of 13 participants made progress as relevant story events and elements were applied or incorporated.

Word order correction as another technique was used to raise the learners' syntactic awareness to narrate short stories in written form. The results revealed that the learners' ability to reverse the sentences, to a large extent, depended on syntactic complexity. This suggests that syntactic ambiguity influences syntactic awareness. Accordingly, learners who suffered from syntactic ambiguity in sentences couldn't rewrite the short stories as well as other learners. This is in line with the results found by Nation and Snowling (2000) suggesting that poor comprehenders had more difficulty with reversing long, complex and ambiguous sentences than typically-developed learners.

Despite the various results obtained for individual learners, the findings obtained from present study indicated that words with high-frequency were used more than usual. Learners, no matter what language they were learning made errors in their written narrative task. This was because they lacked experience

or exposure to low-frequency words and when this occurred, overextension in the use of high-frequency words increased (Bedore & Pena, 2008). This was revealed in some of the transcripts in the current study. As one example, over-extension can be seen in one of the learner's transcript. It appeared that any time the participant wanted to write "said", "told", "ordered" and "asked", he used "said".

Another salient result was that the participants overextended high-frequency words. Overextension of specific words was prevalent in the transi-tions between utterances. For example, the words "so", "and" "and then" were the first words of most utterances as the learners rewrite the stories based on pictures sets.

Another important point to be mentioned is the length of the language tran-scripts. In narrative, productivity is measured by means of the length of the transcripts. Thus, the most reliable microstructural measure was the language samples between 35 and 65 utterances (Miller et al., 2011). A large number of participants in the present study produced scripts consistent with or even higher than the range mentioned.

Moreover, in the current study, all participants and the teacher reported their pleasure and satisfaction with the experience. Moreover, they approved that the intervention can create long lasting changes in written narrative skills of nearly all learners.

The present study had some limitations. The most important limitation of this study was using intact classes which were previously registered by the Foreign Languages School. The researchers had a population of nearly 40 learners as the average number of research population since no more than 20 learners could be placed in the classrooms. This might limit the generalizability of the findings. As each participant was receiving different amount and type of instruction outside the Foreign Languages School, this was also regarded as a limitation. As learners attend different high schools, they received different kinds of instructional services during the study. This could consequently influ-ence the results of the study.

As the study measured the effect of one independent variable i.e., syntactic awareness realized by means of two techniques i.e., story grammar elements and word order correction, it was not possible to measure the individual role of each of them in the participants' improvements in written narrative task per-formance. This can be regarded as a main delimitation of the study.

Conclusion

To date, researches carried out demonstrate the importance of narrative skills as substantial tools to maintain effective communication in every day conversa-tion (Duinmeijer et al., 2012), in reading outcomes (Paul & Smith, 1993) as well as in academic activities (Heilmann et al., 2010). Thus, embedding them in in-teractive learning context is of paramount importance. Couched in this concep-

tualization, this research was carried out to investigate the accuracy, fluency and complexity (AFC) development in learners' task performance as a result of syntactic awareness raising through story grammar elements and word order correction applied in foreign language classes in Iran. Specifically, this study showed the development of the three above-mentioned constructs by using six measures over 17 sessions in written narrative task performance of 40 foreign language learners of English. The result of the present study indicated that the syntactic awareness raising activities influence the foreign language learners' retelling short stories significantly.

The results of this study can help teachers incorporate syntactic awareness raising in their methodology as it can improve intermediate narrative skills of the learners to a great extent. Moreover, Syllabus designers and textbook writers can include parts as script stories in their textbooks which provide rooms for teachers to apply syntactic awareness raising techniques in language learning classes.

Due to the effectiveness of applying such techniques, as found in the present study, educational policy makers can hold in-service classes to train teachers how to apply awareness raising techniques in their classes. The reason is that this is a skill which needs teachers to be trained how to use it correctly and efficiently, otherwise the results will be reverse.

Awareness raising activities which may improve written performance have opened new avenues of research. The present study only took the effect of syntactic awareness raising techniques on written production of EFL language learners. Additionally, the effects awareness raising techniques might have on the other language skills such as reading and speaking as well as listening can open new areas for investigation.

The results obtained from current research indicate that syntactic awareness raising can improve the narrative proficiency of Iranian EFL intermediate learners. This opens new areas for future research. To be able to evaluate the difference between learners at different level of competency, comparative study of different proficiency levels can be carried out.

To replicate the result, this research should be conducted with both younger and older learners. It can improve generalizability of the results. Also, in similar studies, larger groups of learners could be targeted. Previous studies have emphasized strong relationships between narrative skills in preschoolers and development in emergent literary skills (Dickinson & McCabe, 1991; McCabe & Rollins, 1994). Researches carried out highlights the significant role narrative skills play as predicator of progress in language proficiency (Cleave et al., 2010). Moreover, some studies have emphasized their salient features when it comes to predict future reading outcomes in the language learners (Dickinson & McCabe, 1991; Gutiérrez-Clellen, 2002). In the area of language pedagogy as well, thorough information about learners' narrative and language skills is of primary significance (Riley & Burrell, 2007). Thus, new studies need to research into narrative abilities of children of different ages and different levels

to ensure the efficacy of this type of research so that teachers could be in a better position to understand language development of their students.

The results obtained from present study provide implications for EFL syllabus designers, curriculum planners, and language teachers to construct suitable material for pedagogical purposes. At the same time, language learners based on such techniques can improve their language proficiency.

Nowadays, it is thought that communicative language teaching is inappropriate to promote proficiency in EFL language learners (Kalanzadeh, et al., 2013) and that task-based instruction can serve as a compromise to remove this inefficiency (Scura, 2016). Teachers and learners should be aware of fact that making a link between theories of language and their practical realizations requires methodological techniques. They search for possibilities to invent techniques to promote learners' performance in language. A short literature review on history of language pedagogy shows inadequate discussion of awareness raising integrative techniques and methodological plans or strategies to use language meaningfully.

In the view of such a practical need in second language pedagogy, raising learners' awareness of syntactic features of language by means of focus on form activities could improve meaningful communication. Thus, such practices can be incorporated into a meaning-oriented instruction. Curriculum planners should investigate feasible ways to design appropriate tasks where learners' awareness can be easily raised through creating links between form and meaning. This later one could serve as a practical suggestion and it is an impetus for EFL teachers to think of awareness raising techniques which assist learners to improve not only communicative fluency but also grammatical accuracy.

For researchers, it illuminates the future research on this less investigated area creating the floor for them to go deep through the EFL contexts and find more about the probable effects syntactic awareness raising might have on language teaching and learning.

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Novice EFL Teachers' Preconceptions of Teaching English: A Case Study of Iranian Private Institutes

Research Article

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Abstract

As a growing trend in the cognitive approach to teaching, exploring teachers' preconceptions can help to reveal various underlying dimensions that could leave significant impacts on the teaching process. Such preconceptions, of course, are very important in the case of novice teachers, particularly English as foreign language (EFL) ones, who have started to shape or re-shape their ideas about teaching. This study investigated Iranian EFL novice teachers' preconceptions at private institutes, following three purposes: (a) it tried to find any possibly existing underlying preconceptions about teaching in the teachers; (b) it sought to detect any

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similar patterns in their ideas; and (c) it intended to find the metaphori-cal expressions the teachers used to share their experiences of teaching English. To trace any similarities in the novice teachers' preconceptions, copies of a questionnaire including twelve items were completed by a sample of novice EFL teachers (43 males/females). The data analysis revealed five factors underlying the preconceptions: learning, students' problem solving, teachers' role, instruction, and good teacher. Moreover, to investigate the metaphorical expressions, 20-miniute semi-structured interviews were arranged with five EFL novice teachers. The interviews revealed that the participants employed metaphors in sharing their teaching-related experiences.

Introduction

Teachers with one to three years of work experience are usually known as nov-ice teachers (Youngs & Youngs, 2001). Although they may not have extensive teaching experience, novice teachers start the teaching practice with some pre-conceptions. As Richards (1994) and Borg (2003) observe, teachers' conceptu-alizations of teaching have a significant impact on their work. Novice teachers, too, may have some preconceptions about teaching language that affect their teaching in practice. Exploring such preconceptions can help both teachers and language institutes make better decisions in the field of education, especially in English education (Fives & Buehl, 2012).

Beginner EFL teachers' beliefs and their personal EFL-related learning expe-riences, most importantly in the first three years of their teaching, represent a major source of data for understanding how they approach teaching (Youngs & Youngs, 2001). From a practical perspective, decision-makers in the field of EFL, especially in private institutes, must be aware of the fact that teachers' preconceptions about teaching English play a crucial role in understanding how they approach their work. Institutes, for instance, can implement programs in their institutional structure that motivate teachers to develop self-awareness of teaching and even reveal their beliefs about it.

Exploring EFL-related underlying preconceptions represents a significant topic, mainly because teachers' thoughts in foreign language teaching settings have always been controversial issues in the teaching process. Many studies have tried to unravel teachers' theories and beliefs, investigating the psycholog-ical contexts which shape teachers' thinking (Theriot & Rice, 2009). Even nov-ice teachers with no experience of teaching do not start their career with a tab-ula rasa but they carry with themselves some perceptions (Youngs & Youngs, 2001).

An important issue is that novice teachers' preconceptions can affect their instructional practices, thus influencing students and even the system in certain ways (Erkmen, 2010). Al-Awidi and Alghazo (2012) contend that acquiring

teaching skill can be regarded as a process in which the teacher actively constructs a workable and personal teaching theory. Moreover, personal experiences of learning English may exhibit some similar patterns among a group of teachers. Finding out these similarities will help us to find a framework for describing novice EFL teachers' thinking and for understanding how English language teachers learn to teach (Nespor, 1987). As Warford and Reeves (2003) explain, novice teachers' preconception may be expressed as metaphorical statements that conceptualize their experience of teaching.

This study investigates Iranian novice EFL teachers' preconceptions at private language institutes, as a topic remaining unexplored in the Iranian EFL setting. More specifically, the study seeks to: (a) find out whether Iranian novice EFL teachers have any preconceptions about teaching; (b) detect any similarities among the possibly observed preconceptions of the novices participating in this research; and (c) explore the metaphorical expressions used by such teachers in describing their mental images of teaching. Ample research has extensively discussed English language as an important issue in Iran. Although English is not the main medium of instruction at Iranian universities, university students have to pass some courses in English particularly for the purpose of research. Therefore, knowing English is necessary in an Iranian academic scheme (Aghagolzadeh & Davari, 2017; Salehizadeh et al., 2020).

Literature Review
Teacher Thinking and EFL

The relationship between teacher cognition and education has recently come to the fore as an interesting topic, especially in investigating beginner teachers' beliefs and activities. Studies have observed various tendencies that classroom instructors may exhibit in practice (e.g. Andrews, 2003; Farrell, 2003, 2008; Karavas-Doukas, 1996; Sato & Kleinsasser, 1999; Schaefer & Clandinin, 2019; Tabachnick & Zeichner, 2003; Urmston & Pennington, 2008). For instance, Farrell's (2008) study of a first-year English language instructor, in the Singaporean EFL teaching context, showed that although they were not applicable in his teaching context, the teacher pursued his beliefs; yet he made an effort to find a balance between the institution's expectations and his beliefs.

In another study, Urmston and Pennington (2008) studied five novice English language teachers working in secondary schools in Hong Kong. They asserted that there was some inconsistency between classroom practices and the teachers' beliefs, due to the constraints imposed by the education system. Researchers in Turkey have recently shown a particular interest in investigations that examine Turkish prospective EFL teachers' practices and beliefs (e.g. Akbulut, 2007; Özmen, 2012; Öztürk & Atay, 2010; Phipps & Borg, 2009; Seferoğlu et al., 2009).

Drawing on the findings of studies concerned with teachers' thinking to inform language teaching pedagogy and teacher education, Nguyen (2020) employed multiple data sources (focus group, lesson plan, and stimulated recall

interview) to delve into the conceptions of six Vietnamese EFL instructors re-garding language output and interaction. Cross-case analysis showed that most of the teachers geared language output and interaction activities towards achieving a targeted linguistic objective. Further analysis revealed that this view reflected a synthetic, product-oriented conception of teaching learning through skill building, and it was in line with traditional approaches that em-phasized transmission style and form instruction. This finding implies that con-structivist approaches to teaching, such as task-based language instruction, may run counter to teachers' existing conceptions of teaching. The implementa-tion of task-based instruction, thus, needs to consider a negotiation between teachers' focus on meaning and the need for form-focused instruction.

In a longitudinal study, Phipps and Borg (2009) scrutinized 11 English teachers' beliefs about grammar practices and teaching. They reported that due to the students' expectations and preferences, the teachers had to adopt ways of teaching contrary to their beliefs. In another study of novice Turkish teach-ers, Akbulut (2007) observed that the beginner teachers were not able to apply their ideas while teaching, simply due to contextual restrictions and discipli-nary problems in classes.

Cognitive Psychology and Teacher Cognition

Cognitive psychology is the study of mental processes, such as decision-making and learning. Many other areas of psychology probe into the relationship be-tween thoughts and behavior, but cognitive psychology focuses on the internal processes instead. This field also explores philosophical questions, because some of the issues it addresses move beyond a mere experimental/scientific framework. As Erkmen (2010) observes, until the mid-1970s, the mainstream explorations were concentrated on teachers' *behavior*, although teachers' men-tal dimensions only represented a subsidiary concern (Freeman, 2002). The problem of a fully behavioral investigation is that it would leave many ques-tions unanswered. As a response, the mid-70s witnessed a turning point during which studies started to take account of teachers' cognition, including their knowledge, beliefs and thinking (Borg, 2003).

Since then, teachers have begun to be seen as *thinkers* and *decision-makers*, in the light of their learning experiences (Clark & Peterson, 1986; Clark & Yinger, 1977; Elbaz, 1983; Nespor, 1987; Pajares, 1992; Trent, 2019). Analyzing teachers' thoughts about teaching, Clark and Peterson (1986) categorized three main instructors' thought processes: (a) teachers' beliefs and theories; (b) teacher's pre-active decision-making and planning; and (c) teachers' decisions and interactive thoughts. Although teachers' theories and beliefs are associated with the psychological aspect (which underlines teacher thinking and decision-making), instructors' interactive and pre-active thinking related to the decision-making and thinking procedures experienced by teachers before and during the teaching process (Richards, 1994).

While a focus on cognitive processes is not an entirely new notion in applied linguistics, interest in the cognitive processes employed by foreign language teachers is a far more recent topic. As the "teacher-as-thinker" idea gained prominence in cognitive psychology, researchers were more eager to find out how instructors conceptualized their work and the modes of decision-making and thinking activities underlying their practice. The cognitive analysis of language teaching contributes to the understanding of how teachers teach and how novice teachers develop an image of teaching (Richards, 1994).

In a study of two EFL instructors at a public school and two at a private school, Kavanoz's (2006) observed similar findings on instructors' roles. In the public school, the teachers considered themselves as "tellers", "presenters" and "correctors", while in the private school, the teachers considered their roles as "facilitators", "guides", "leaders", and "problem solvers." The author reported that the teachers' roles reflected their teaching styles. The instructors in Richards et al. (1992) investigation served these functions in their classroom practices: correcting learners' errors, responding learners' questions, providing fruitful learning experiences and providing a model of correct language use. When the teachers were asked to describe their main activities as English teachers, they enumerated their roles as helping learners discover effective approaches to learning, adapting teaching methods to match their students' needs and imparting knowledge and skills to their students.

Novice EFL Teachers' Beliefs

Examining beginner or first-year language teachers' beliefs has become a trending topic recently. More investigations have addressed novice teachers and particularly their beliefs, although compared to other areas of teaching, these studies are not yet great in number. Phipps and Borg (2009), Farrell (2008), and Akbulut (2007) conducted some studies on novice teachers' beliefs. There have been some investigations dealing with novice teachers in Iran, too. For example, Bashiri et al. (2016) explored novice and experienced Iranian EFL teachers' beliefs regarding learner autonomy. They revealed a difference between experienced and novice teachers' personal beliefs in terms of learner autonomy. The study showed the role of beliefs in teaching and learning.

In another survey, Shahvand and Rezvani (2016) investigated the teachers' beliefs about effective teaching in the context of language classrooms in Iran. By looking at Iranian EFL instructors' own belief, the study addressed the need for a thorough understanding of the role of effective teaching in EFL classrooms. In studies concerned with beginner instructors, the problems that such teachers encounter in the first year of teaching have been given more attention (Veenman, 1984). Although the importance of novice teachers' problems is a significant issue, the studies exploring areas such as teachers' beliefs about learning and teaching remain underdeveloped, particularly in the case of non-native (non-English speaking) novice English language teachers.

In general, different Iranian researchers scrutinized the relationship be-tween teachers' beliefs and various aspects of their instructional practices. A considerable number of these studies focused on teachers' beliefs and activities among novice and expert instructors (e.g., Bashiri et al., 2016; Ghajarieh , 2019; Khalaj, 2010; Mehrpour & Mirsanjari, 2016; Mehrpour & Moghaddam, 2018; Yazdanpanah & Sahragard, 2017; Zarei & Sharifabad, 2012). The findings tend to enumerate differences and of course a few similarities among novice and expert teachers.

Research Method

Design and Instruments

This study relied on a mixed method as it combined quantitative and qualitative approaches. The study drew on a structured questionnaire and semi-structured interviews as the instruments of quantitative and qualitative data collection, respectively. Two instruments were used in this research: (a) teachers' beliefs questionnaire (TALIS); and (2) Warford and Reeves' (2003) interview guide.

Teachers' Beliefs Questionnaire. In order to measure the instructors' beliefs, the data were collected through questionnaires. The original questionnaire was adopted from OECD Teaching and Learning International Survey (TALIS). The 12 items in the questionnaire were measured based on a four-point Likert scale, ranging from "Strongly Disagree" (1 point) to "Strongly Agree" (4 points). The questionnaire was employed to explore the participants' beliefs about Eng-lish language teaching. As the questionnaire was standard, its reliability and validity had been confirmed.

Semi-Structured Interviews. Semi-structured interviews were also conducted in this study with five participants to investigate their metaphors. Warford and Reeves' (2003) interview guide, then, was used as the second instrument for data collection. Each interview lasted about fifteen minutes.

Participants

The participants were 43 Iranian novice EFL teachers (both males and females) who worked in private institutes in Shiraz, Iran, and had less than three years of experience in teaching English. All the participants were Persian native speakers and were aged 20-30. Among the novice teachers, five were inter-viewed, based upon the principals of confidentiality and anonymity. The partic-ipants were informed of the study's purpose and their consent was earned. The interview questions generally addressed the participants' experiences in lan-guage education.

Data Collection Procedure

The participants were informed about the objective of the study. Then, they learned about the questionnaire and how to respond to it. The copies of the

questionnaire were administered to the teachers. Following that, the scores obtained from the questionnaires were analyzed. In addition, five participants had semi-structured interviews through which their metaphors associated with teaching were identified. More specifically, the interviews were audio-recorded and were then transcribed to exactly detect the metaphors used in the participants' accounts.

Data Analysis

Initially, the participants were asked to fill out the questionnaire on teachers' beliefs. Next, to explore the teachers' beliefs about language teaching, descriptive statistics were calculated to find any similarity. To analyze the data, the audio-records of the interviews (each approximately fifteen minutes in length) were carefully transcribed, following the guidelines of McCracken's (1998); each transcription was substantially analyzed for its internal theme and possible metaphors expressed. The interviews were then inspected to detect possible patterns in the responses. The data observed were then coded, and the participants' metaphorical expressions were highlighted and categorized.

Results
Answering the First and Second Questions

The first question tried to find out whether the teachers had any preconceptions about teaching English, whereas the second question was meant to detect any pattern of similarity in the preconceptions expressed. A 30-item questionnaire was used to elicit the teachers' preconceptions about teaching English. The questionnaire included 12 items measured according to a four-point Likert scale ranging from "Strongly Agree (4)" to "Strongly Disagree (1)." To analyze the participants' preconceptions about teaching English, factor analysis was conducted, which revealed the following five factors: (a) learning including items B, H, J and K; (b) students' problem-solving including items F and I; (c) teachers' role including items C, D and E; (d) instruction including items G and L; and (e) good teacher including item A. Therefore, the teachers' preconceptions about teaching fell under five factors through factor analysis.

Figure 1
The Five Factors Found Through Factor Analysis.
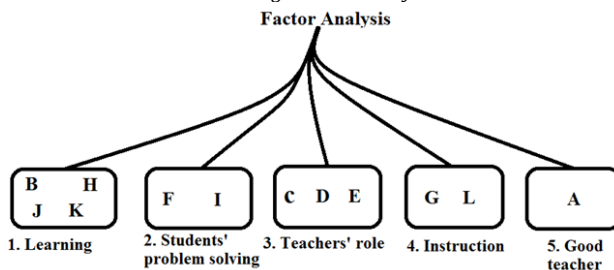
Table 1

Mean Scores of the Items of the Questionnaire

	Descriptive Statistics				
	N	Minimum	Maximum	Mean	Std. Deviation
A	43	2.00	4.00	3.2093	.55883
B	43	2.00	4.00	2.6512	.65041
C	43	1.00	4.00	2.7907	.67465
D	43	1.00	4.00	3.0465	.57543
E	43	1.00	4.00	2.0000	.75593
F	43	2.00	4.00	3.2791	.62965
G	43	2.00	4.00	2.9070	.68362
H	43	1.00	4.00	2.5814	.62612
I	43	1.00	4.00	3.2093	.63838
J	43	2.00	4.00	2.8140	.58781
K	43	1.00	4.00	2.5116	.76756
L	43	1.00	4.00	2.8140	.66389
Preconception (Total)	43	2.42	3.33	2.8178	.25083
Valid N (listwise)	43				

As the mean scores fell between 1 to 4, 2.5 was considered to be the mid-point. The mean scores above the mid-point were regarded as the positive pre-conceptions, and those below the mid-point were seen as the negative precon-ceptions. Based on the results, the participants had positive preconceptions about teaching English, in general (mean = 2.81). The results of the descriptive statistics revealed that the participants had positive preconceptions about all the items of the questionnaire, except item E (*Teachers know a lot more than students; they shouldn't let students develop answers that may be incorrect when they can just explain the answers directly*) (mean=2.00). The results also indi-cated that among the items of the questionnaire, item F received the highest mean score (*Students learn best by finding solutions to problems on their own*) (mean=3.27).

In the next step, the responses were coded as "Disagree =1" or "Agree =2." To simplify the interpretation, "Strongly Disagree" and "Disagree" categories were incorporated into one single negative category (Disagree), whereas the categories of "Agree" and "Strongly agree" were merged in one positive catego-ry (Agree). To examine whether the Iranian novice EFL teachers' preconcep-tions about teaching English exhibited similar patterns, the percentage of the answers to each item was computed. Furthermore, the chi-square test was con-ducted to see whether there was any significant difference between the fre-quency of the answers of the two alternatives (Agree and Disagree) in each item. Table 2 shows the results of the frequency and chi-square analysis.

Table 2

Frequency of the Responses and Chi-Square to Compare the Pattern of the Responses

Questionnaire Statements	Frequency and Percent-age of the responses		Chi-square	Asymp. Sig.
	Disagree	Agree		
A) Effective/good teachers demonstrate the correct way to solve a problem.	3 7.0%	40 93.0%	31.837[a]	.000
B) When referring to a "poor performance", I mean a performance that lies below the previous achievement level of the student.	19 44.2%	24 55.8%	.581[a]	.446
C) It is better when the teacher – not the student – decides what activities are to be done.	13 30.2%	30 69.8%	6.721[a]	.010
D) My role as a teacher is to facilitate students' own inquiry.	4 9.3%	39 90.7%	28.488[a]	.000

E) Teachers know a lot more than students; they shouldn't let students develop answers that may be incorrect when they can just explain the answers directly.	35 81.4%	8 18.6%	16.953ᵃ	.000
F) Students learn best by finding solutions to problems on their own.	4 9.3%	39 90.7%	28.488ᵃ	.000
G) Instruction should be built around problems with clear, correct answers, and around ideas that most students can grasp quickly.	12 27.9%	31 72.1%	8.395ᵃ	.004
H) How much students learn depends on how much background knowledge they have – that is why teaching facts is so necessary.	19 44.2%	24 55.8%	.581ᵃ	.446
I) Students should be allowed to think of solutions to practical problems themselves before the teacher shows them how they are solved.	3 7.0%	40 93.0%	31.837ᵃ	.000
J) When referring to a "good performance", I mean a performance that lies above the previous achievement level of the student.	12 27.9%	31 72.1%	8.395ᵃ	.004
K) A quiet classroom is generally needed for effective learning.	20 46.5%	23 53.5%	.209ᵃ	.647
L) Thinking and reasoning processes are more important than specific curriculum content.	12 27.9%	31 72.1%	8.395ᵃ	.004

According to the mean scores listed in Table 2, the majority of the teachers agreed with items A, D, F, G, I, J, and L. This tendency revealed that they had similar perceptions of the items above. On the other hand, the majority of the teachers disagreed with item E, which was another similar perception. However, the teachers' perceptions about items B, H, and K were not similar. Figures 2-4 illustrate packages of pie charts that specify the percentages of each item.

Figure 2
The Frequencies and Percentages of Responses to Items A-D

Figure 2. A. Figure 2. B.
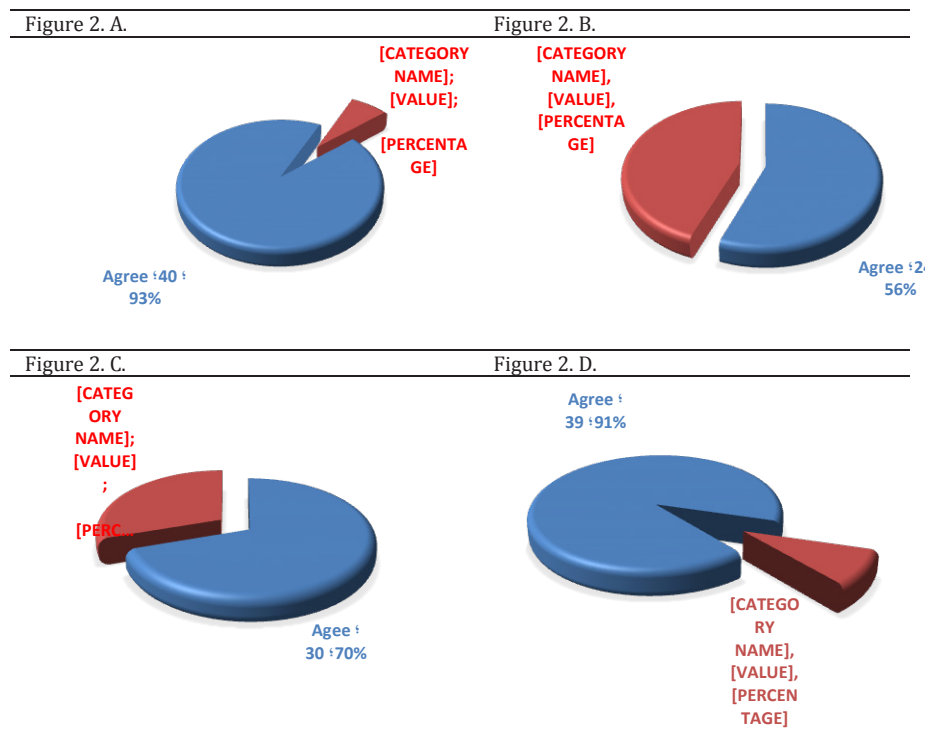
Figure 2. C. Figure 2. D.

Note. Figure 2. The frequencies and percentages of responses to items a-d: Figure 2. A.: "Effective/good teachers demonstrate the correct way to solve a problem" (sig.= .00, p < .05); Figure 2. B.: "When referring to a 'poor perfor-mance', I mean a performance that lies below the previous achievement level of the student" (sig.= .446, p < .05); Figure 2. C.: "It is better when the teacher – not the student – decides what activities are to be done" (sig.= .01, p < .05); Fig-ure 2. D.: "My role as a teacher is to facilitate students' own inquiry. (sig. =.000, p < .05)."

Figure 3
The Frequencies and Percentages of Responses to Items E-H

Figure 3. E.	Figure 3. F.
[CATEGORY NAME], [VALUE], [PERCENTAGE] — Agree ٩8٩ 19%	Disagree ٩ 4 ٩9% — Agree ٩39٩ 91%

Figure 3. G.	Figure 3. H.
[CATEGORY NAME], [VALUE], [PERCENTAGE] — Agree ٩ 31 ٩72%	[CATEGORY NAME], [VALUE], [PERCENTAGE] — Agree ٩24 ٩ 56%
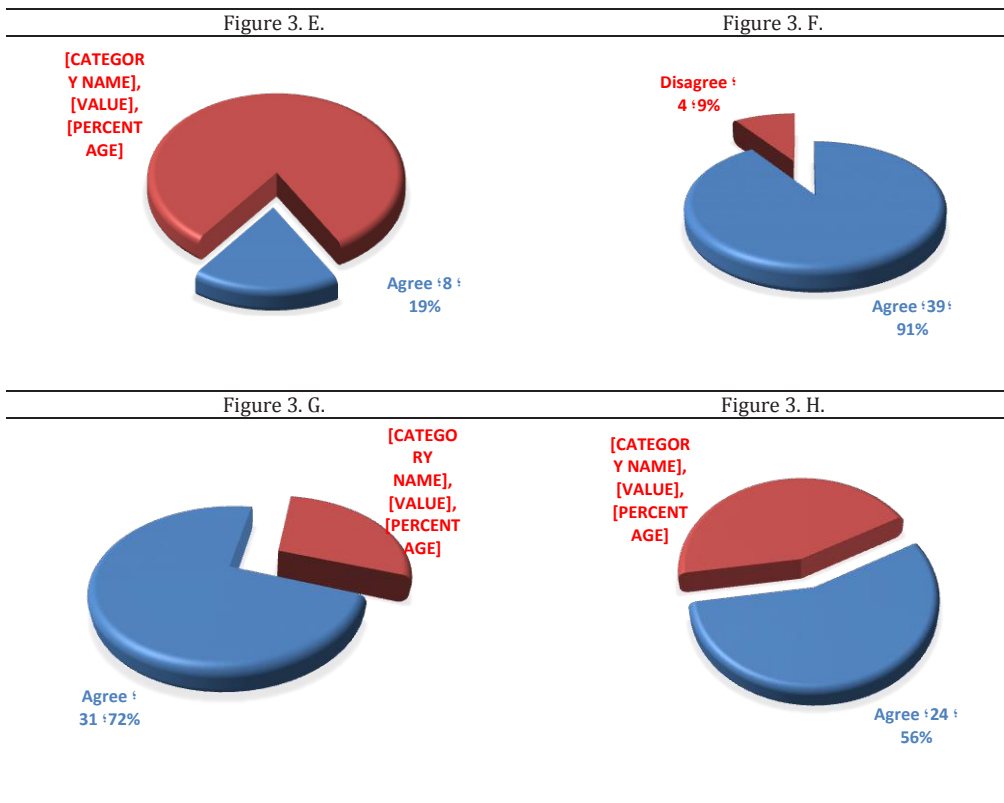
Note. Figure 3. E: "Teachers know a lot more than students; they shouldn't let students develop answers that may be incorrect when they can just explain the answers directly" (sig. = .000, p <.05); Figure 3.F: "Students learn best by finding solutions to problems on their own" (sig .= .000, p <. 05); Figure 3.G: "Instructions should be built around problems with clear, correct answers, and around ideas that most students can grasp quickly" (sig .= .004, p < .05); Figure 3. H: "How much students learn depends on how much background knowledge they have – that is why teaching facts is so necessary" (sig. = .446, p <. 05).

Figure 4
The Frequencies and Percentages of Responses to Items I-L:
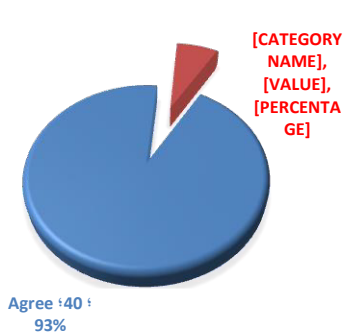
Figure 4. I.	Figure 4. J.
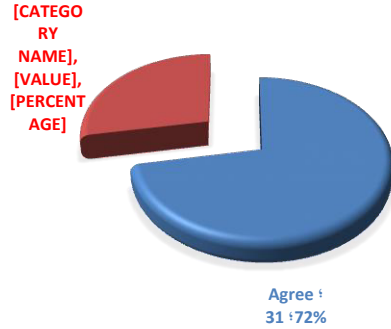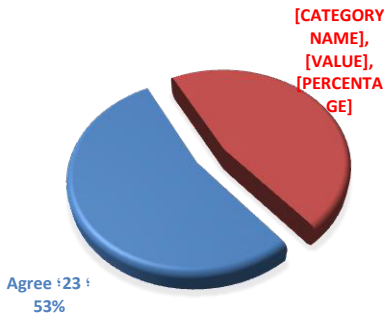
Figure 4. K.	Figure 4. L.
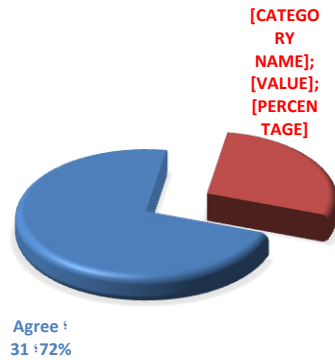
Note. Figure 4.I: "Students should be allowed to think of solutions to practical problems themselves before the teacher shows them how they are solved" (sig. = .000, p < .05); Figure 4.J: "When referring to a 'good performance', I mean a performance that lies above the previous achievement level of the student" (sig.= .004, p <.05); Figure 4.K: "A quiet classroom is generally needed for effective learning" (sig.= .647, p < .05); Figure 4.L: "Thinking and reasoning processes are more important than specific curriculum content" (sig.= .004, p < .05).

Figure 5

Agreement in Factors Demonstrating Similar Positive Perceptions
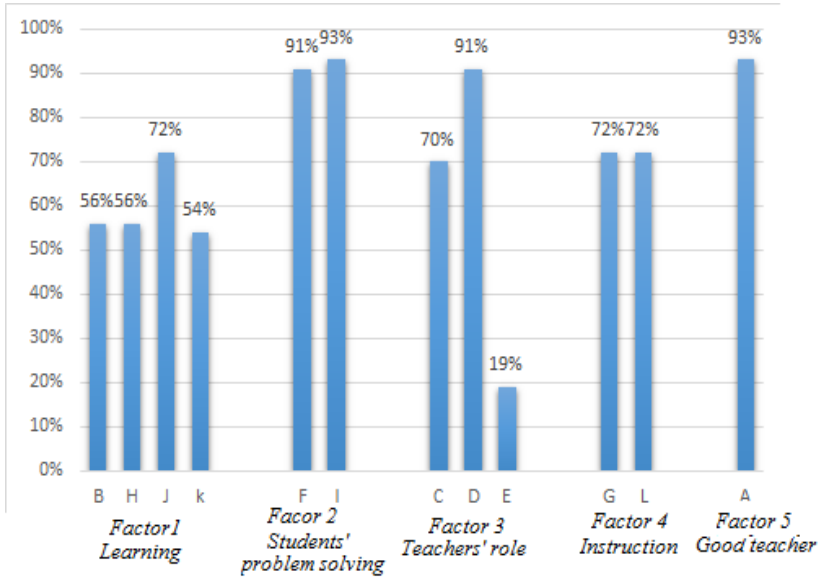
Figure 6

Agreement in Factors Demonstrating Similar Negative Perceptions.
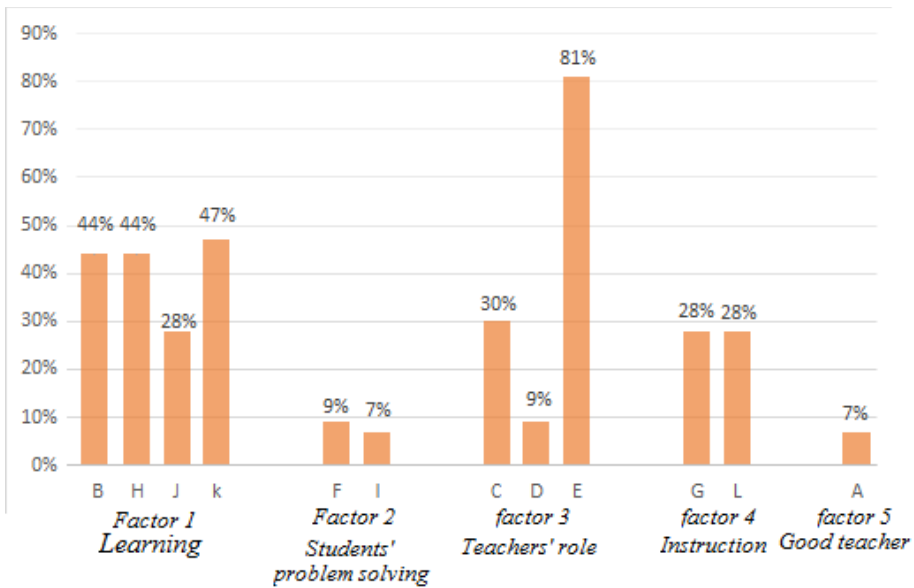
The results of the first factor showed that in items B, H, and K, the teachers' responses were not similar. About 56% of the respondents agreed with item B

(*When referring to a "poor performance", I mean a performance that lies below the previous achievement level of the student*), and item H (*How much students learn depends on how much background knowledge they have-that is why teaching facts is so necessary*). Meanwhile approximately 44% of the teachers disagreed (sig = .44) with items B and H. In the same vein, 72% of the respondents agreed with item J (*When referring to a "good performance", I mean a performance that lies above the previous achievement level of the student*).

About 72% of the respondents agreed with item J and about 28% disagreed with it (sig. .004); this observation suggested that the teachers' preconceptions of the relationship between performance and continuous achievement was positive. As far as item K was concerned (*A quiet classroom is generally needed for effective learning*), about 54% of the teachers' responses expressed agreement, whereas 46% of them disagreed (sig. = .64). More teachers believed that learning English would happen in a quiet atmosphere. Therefore, the teachers did not have similar preconceptions of this aspect of learning.

The second factor that addressed students' problem solving was item F (*Students learn best by finding solutions to problems on their own*); 91% of the teachers agreed with item F, while only 9% expressed disagreement (sig. = 0). The teachers were convinced that students should be problem-solvers. Furthermore, item I (*Students should be allowed to think of solutions to practical problems themselves before the teacher shows them how they are solved*) received a high score in terms of agreement (93%), with a relatively low rate of disagreement (7%); this observation clarified that preconceptions were similar in terms of the students' pre-active problem-solving abilities. The third factor concerned with the teachers' role in an English class was item C (*It is better when the teacher-not the student-decides what activities are to be done*); 70% of the respondents stated agreement and 30% of them expressed disagreement (sig. = .010) in this regard. A similar component, item D (*My role as a teacher is to facilitate students' own inquiry*) received 91% agreement and 9% disagreement (sig. 000), revealing that most of the teachers shared the similar preconceptions that a teacher must have a facilitating function in the English learning process.

As the findings revealed, however, the majority of the teachers had negative preconceptions of item E (*Teachers know a lot more than students; they shouldn't let students develop answers that may be incorrect when they can just explain the answers directly)* (percentage = 81.4%, sig. = . 00, $p < .05$). This relatively strong response to item E unraveled that the teachers had similar preconceptions about providing opportunities to students in their efforts to work with the foreign language, even if their answers were not perfect enough. The fourth factor was concerned with giving instructions in an English class; item G (*Instruction should be built around problems with clear, correct answers, and around ideas that most students can grasp quickly*) received 72% of the teachers' agreeable responses (with 28% disagreement; sig. = .004). The teachers sharing similar preconceptions contended that instructions had to be clear and understandable for students. As far as item L was concerned (*Thinking and rea-*

soning processes are more important than specific curriculum content), 72% of the teachers expressed agreement while 28% shared disagreeable opinions (sig. = .004); this tendency clarified that, as the larger number of the teachers assumed, instruction should be based on thinking not just a course book. Hence, more teachers had similar preconceptions about giving instruction in an English class.

The last factor was concentrated on the idea of a *good teacher*; item A (*Effective/good teachers demonstrate the correct way to solve a problem*) received an agreement score of 93%, with 7% disagreement (sig. = .000). As the teachers participating in this study suggested, a good teacher would show learners the *way* of learning. Thus, in terms of item A, the teachers had similar preconceptions about an effective/good teacher. Based on the findings of this study, the novice teachers *definitely* had some preconceptions about teaching, and as illustrated in Figures 2-4 (see above), these Iranian novice EFL teachers' preconceptions of teaching revealed similar patterns in terms of such items as *students' problem-solving*, *good teacher*, and *instruction*. In contrast, the teachers' beliefs about the factor of *learning* did not show a similar pattern.

Answering the Third Question

The third question tried to figure out whether or not the Iranian novice EFL teachers employed any metaphors in their preconceptions of teaching. Following McCracken's (1998) guidelines, the transcriptions of the interview sessions were rigorously analyzed to find the metaphors used by the EFL novice teachers participating in the study. The metaphors used by the participants were mainly concerned with such topics: (a) deciding to enter the English language teaching profession; (b) English language learning; (c) EFL teaching; and (d) the ideal language teacher. The most prevalent metaphors used by the participants were elicited in response to the question: "Why did you choose EFL teaching?" The participants responded in two different ways: "I had to" and "I liked it." Some accompanying phrases were "with reluctance", "under compulsion", "with interest", and "built-in feature."

The second group of the metaphors employed by participants were expressed in response to the question: "How would you evaluate your language learning experience(s)?" The participants evaluated their English language learning as "enjoyable" or "unpleasant." Other related ideas used by the participants included "sweet", "intriguing", "disgusting", and "hateful." The third group of metaphors were shared in response to the question: "What did EFL teaching sound like before you started teaching?" The participants employed such phrases as "as easy as pie" and "difficult to do." The fourth group of metaphors were stated to answer the question: "What qualities would the ideal language teacher possess?" The metaphors in this case were "knowledgeable", "god of language", "good looking", "patient", "not being a dictator", and "having knowledge in psychology." A participant stated:

...EFL teachers were gods of language. I thought they knew everything. We called them a *pocket dictionary* because they knew every word in English when asked.

All the participants mentioned that they were inspired to learn English by somebody else. This person was in most cases their first teacher. One of the participants explained:

... my first teacher was Mr. ****. He was very good-tempered and spoke English in class. He pointed to the objects in class and told us their names in English. We didn't know what he was saying but we repeated after him. Then he would ask for a volunteer and I usually raised my hand and walked to the front of the class and I named all three or four objects and he would clap. It was the most enjoyable experience in English class for me.

Another participant stated:

... my mother had a friend who lived in the United States. Whenever she traveled to Iran with her family and visited us, I'd ask their children to speak American English. I was very fascinated with their American accent. I wished I could speak like them.

Their experiences of learning had a great impact on their teaching. In terms of methods of teaching, the participants fell into two groups: the first group stated that they followed the same way they were taught; in contrast, the second group claimed that they would never repeat what their teachers did. Another participant recalled:

... I learned from my teacher to call the names of the students who didn't study. We had a lot of stress which was bad at that time but it made us study every session. I try to do the same thing in my class.

Nonetheless other participants stated very different approaches:

... the teacher should behave in a very friendly manner to make the students feel delighted. In an EFL class, students come with a lot of fear and stress. I myself went to class with tears and the teacher's behavior frightened me so much. The teacher should be nice and helpful especially during the first two or three sessions.

Discussion

This study sought to explore Iranian novice EFL teachers' preconceptions, find any the similar patterns in their preconceptions, and categorize the metaphorical ideas they used to represent their teaching/learning related experiences. As explained earlier, novice teachers' thinking is an expanding topic for research, although there are many gaps in the literature especially in terms of such teachers' preconceptions in various cultures. The results in this research showed that the Iranian novice EFL teachers *definitely* had some preconceptions about teaching. According to the descriptive statistics, the novice teachers expressed both positive or negative preconceptions about teaching English, as

decided by the items in the questionnaire used. Therefore, the teachers' pre-conceptions fell into two groups although these preconceptions showed certain similarities.

The pattern of responses revealed that the majority of the participants be-lieved effective instructors would show the correct way to solve a problem (item A). They also believed that it would be better when the instructor (not the student) decided classroom practices (item C). Concerning the role of teachers, the participants contended that teachers had to facilitate students' own inquir-ies (item D). This idea implied that the participants considered a teacher to be an authority figure in the classroom who would attempt to foster learn-ers' autonomy.

The results also revealed that most of the participants agreed over the idea that students would come to best results by finding solutions to problems on their own (item F). Responding to item I, the participants agreed that teachers should allow them to think of solutions to practical problems themselves before the teachers themselves shows them how they are solved. The teachers also disagreed with item E (*Teachers know a lot more than students; they shouldn't let students develop answers that may be* incorrect *when they can just explain the answers directly*). This general disagreement implied that the participants ad-vocated *autonomous* learners. This finding was in line with the observations of Bashiri et al. (2016), who investigated experienced and novice teachers' beliefs regarding learner autonomy; they reported that novice teachers believed in learner autonomy.

In addition, the majority of the participants in this study believed that in-struction should be built around problems with correct, clear responses, and around ideas that most learners can understand quickly (item G). Most of the participants viewed "good performance" as a performance that lies above the previous achievement level of a given student (item J). Based on the responses to item L, the participants believed that reasoning and thinking processes were more significant than specified curriculum content.

As Debreli (2012) explains, teachers' perceptions and beliefs strongly influ-ence their approach to teaching and learning and the way they act in class. Pa-jares (1992) also argues that teachers carry with them some strong beliefs and ideas about education that leave an impact on the way they process the input in their program. According to Kagan (1992), student teachers and novice teach-ers use their previous educational experiences to interpret the input provided in their teacher education programs. Kagan further assumes that these beliefs are quite stable, strongly held, and resistant to change.

Concerning the similarity of the teachers' perceptions, the results of the pre-sent study were compatible with those of Altan's (2006), who also found a de-gree of conceptual similarity among pre-service teachers' beliefs. The question addressing the teachers' use of metaphors also revealed two groups of meta-phors dominantly used: expressions associated with enjoyable or unpleasant English learning experiences. As a consequence, some of the participants in the

interview explained they would prefer to employ the same method of teaching as used by their own teachers, while some others said they would draw on exact opposite methods. However, all novice teachers in this study admired a person who encouraged them to find interest in English, but that person was in most cases their first teachers.

According to Ahkemoglu (2011), metaphors are cognitive and reflective means for people to utilize association, comparison and resemblance, while filtering reality through their own mental images. Martinez et al. (2001) suggested that "metaphors may function as stepping stones to a new vantage point from which a teacher can look at his or her own practice as an educator from a new perspective" (p. 974). Furthermore, Lin et al. (2012) indicated that "teaching metaphors provide a framework with which to assess teaching and a means for teachers to augment self-awareness and professional development" (p. 184). The results of the present study were in line with those of a study conducted by Lin et al. (2012), as they found "the pre-service teachers' conceptualization of teaching is deeply rooted in their past experiences" (p. 195).

The results of the present study are in line with Lortie's (1975) who reports that the foundation of an individual's ideas about teaching language is via the experience of being a student and through other life experiences. According to Warford and Reeves (2003), there is evidence of perceptions and a system of language teaching-related metaphors. This study is in agreement with this view as the Iranian novice EFL teachers in private institutes had shaped a system of metaphors about English teaching.

Conclusion

This study investigated the preconceptions of a group of Iranian novice EFL teachers, given the importance of the topic in teaching practice. The study tried to find whether the teachers had any preconceptions, find any similar patterns in their possibly existing preconceptions, and unravel their metaphorical expressions associated with their experiences of English language teaching. Two instruments were utilized to collect data: Teachers' Beliefs Questionnaire extracted from OECD Teaching and Learning International Survey (TALIS) was used to investigate the participants' beliefs about English language teaching, and interview sessions were arranged based on Warford and Reeves' (2003) guidelines to investigate the teachers' metaphors.

The results of factor analysis revealed that the questionnaire consisted of five factors: learning, students' problem solving, teacher's role, instruction, and good teacher. The chi-square test was also employed to evaluate the differences between the number of the participants who agreed and disagreed with every item of the questionnaire. The results revealed that the participants agreed with most of the items presented in the questionnaire. The participants disagreed with only one item (item E). Based on the results of chi-square test, the findings indicated that the participants had similar preconceptions about lan-

guage teaching. The results of the interviews also revealed that the participants had a specific system of metaphors.

Further studies can explore various related questions such as comparing English novice teachers' preconceptions at private institutes and public schools English teachers' about teaching English, comparing EFL teachers' preconceptions with those of teachers of other languages, and formulating a metaphor analysis system to regulate the metaphorical expressions used by EFL teachers regarding their teaching experiences/preconceptions, especially novice ones.

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The Effect of Podcasts and Vodcasts Among Motivated Iranian Learners of English: Different Listening Proficiency Levels

Research Article

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Abstract

These days, technology is an inseparable part of our lives. There is still comparatively little research into effective podcast or vodcast design and students' perceptions and attitudes towards this method. In the present study, the purpose is to clarify the impact of podcasts and vodcasts on motivated learners' improvement in listening skills. The researchers used purposive sampling, and learners were divided into control and experimental groups. To this end, a validated version of a questionnaire that shows the degree of interest in improving listening skills was used to select a good number of motivated learners. Among the selected learners,

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250 intermediate and advanced learners aged 18-35 who were studying English as a foreign language in Ayandegera Institute in 2020 were asked to fill out two questionnaires. Among 60 podcast files and 50 vodcast files, 10 podcasts and 10 vodcasts were chosen according to content validity ratio (CVR) and content validity index (CVI) (0.42, 0.79) formula. The design of the study was experimental. In the current study, descriptive statistics and ANCOVA tests were applied in the analysis of the quantitative data. It was implied that there was a significant difference between the pre-test and post-test scores of the experimental group in both podcast and vodcast groups, whereas there was little significant difference between the pre-test and post-test scores of the control group. Also, the findings showed that there was no significant difference between listening to podcasts and watching vodcasts.

Keywords: listening skill, podcast, teaching English, technology, vodcast

Introduction

Motivation is one of the most significant notions in psychology and language teaching (Hauze & Marshall, 2020). Teachers and students mostly apply the term to describe what causes success or failure in learning (Calderón et al., 2020). In fact, language learners require the motivation to present primary impetus to begin L2 learning and later the driving force to support the long and often lengthy process (Liu et al., 2020).

Traditionally, psychologists have more incentive to think what motivation is and how we can manage it to motivate learners (Yu, & Lee, 2020). Recently, however, more and more scholars have adopted to explore the educational implications of research by intellectualizing motivational methods (Abdeddaïm et al., 2006, Dörnyei, 2001; Yu, & Lee, 2020).

Thus, motivational research has reached the stage of maturity where theoretical advances have played a role in methodological advances (Outakoski et al., 2019). Sattar et al. (2020) suggest that future research should evaluate the ability to teach motivational strategies in general and to examine specific methods that can be used in particular. Thus, Madrid (2002) examined one of the most powerful motivational strategies among 19 different motivational strategies, based on the students and teachers' perception of the use of audiovisual resources and modern technologies. In this regard, the podcast as a recently advanced technology in the field of computer- assistant language learning and mobile assisted language learning is one of the favorable innovations that as an educational device can help in higher levels of motivation and language development in English learners in general, and EFL learners of English, in particular (Chaudhuri, 2020; Ramírez-Verdugo, 2016).

Accordingly, as discussed by Rukthong and Brunfaut (2020), learning through listening is one of the most important educational features provided by the podcast. For many people, listening may be more engaging and less tedious than reading. Therefore, in this study, those learners who were interested in

improving their listening skills were chosen to facilitate the process of the study. It is known that human beings for thousands of years in the learning process have used listening as the main way (Lipetz et al., 2020). Listening may motivate learners who do not like reading. According to Kotaman (2020), Macdiarmid et al. (2020), and Martínez (2019), ELT podcasts are especially suitable for extensive listening, to motivate learners' enthusiasm to listen in English, and to encounter them in the speech of native speakers. One of the difficulties in the foreign language educational context seems to be related to the approaches employed in the classrooms. To use any language approaches, language teachers need to be familiar with learners and teachers' problems in using educational technologies (Taghizadeh & Yourdshahi, 2020).

Learners may show inappropriate responses to the interlocutors in different discourse situations. Speakers of a foreign language are not truly successful until the intended meaning they convey is understood by listeners.

Basically this is why most foreign language teachers often do not include this part of the English language due to lack of time, knowledge and awareness of the importance of using it in daily life (Castillo & Eduardo, 2009).

In this study, the aim of the research was to investigate the impact of podcasts and vodcasts among motivated EFL learners of English listening skills at different levels.

Research Questions

The following research questions led to the course of the present study:

1- *Does the application of podcasts significantly affect motivated learners' improvement in listening skills?*
2- *Does the application of vodcast significantly affect motivated learners' improvement in listening skills?*
3- *Is there any significant difference between listening to podcasts and watching vodcasts in their impact on motivated learners' improvement in the listening skill?*
4- *Is there any significant difference between the improvement of Intermediate learners or Advanced learners in their listening skills?*

Literature Review
Listening Comprehension

Listening skill is considered as the most frequently used skill in language learning. Efficient communication needs professional listening skills and understanding the spoken form of the language. A lot of studies (Hasan & Hoon, 2012; Hegelheimer & O'Bryan, 2007a; Kavaliauskienė, 2008; Sze, 2006) indicate the effectiveness of podcasts in some language skills, especially in listening comprehension. One of the main purposes of podcasting is the im-

provement of listening because it contains various audio and video files of authentic resources that are available on the internet (Abdous et al., 2012; Lim & Bang, 2018).

The use of listening to podcasts became limited to class lectures and made them accessible on the internet for later review. Listening to podcasts provides a great opportunity to improve the grammar and listening skills simultaneously and it can motivate the learners of the class inside and outside the classroom context. Listening to podcasts provides a situation to listen to various types of voices and brings varieties of English to the classroom (Hegelheimer & O'Bryan, 2007b).

Such listening activities bridge the gap between informal listening form which focuses on real-life communication and formal listening skill. Using podcasts causes listeners to use them to develop their listening abilities and their learning capabilities in general (Abdeddaim, 2013).

Podcasting

Podcasts are a new way to play audio files on the Internet and provide users with many possibilities. What distinguishes podcasts from previous models of Internet publishing is the ease of production, publishing, download capability and so on. They are often uploaded or downloaded; these sound records aid the learner to acquaint with the foreign language and instructors can apply them as valuable audio material that will be exploited in and out of class for activities like pronunciation. Also, there are even special podcasts for ESL learners that can fit pronunciation to the actual needs of researchers. The podcast will help students learn listening skills. Podcasting is the combination of sound records where we will give our resources and play it inside and out-of-doors of the classroom (Hegelheimer & O'Bryan, 2007a). Learners use i-pods to listen to their desired music files. Podcasting permits learners to use their tech-based entertainment systems for instructive goals. They are a new technology that finds its own users and is used for a variety of purposes, but the use of podcasts is not limited to personal use, and this new media feature quickly spread to other areas. Podcasts have grown exponentially around the world, and in less than a year, they have become so ubiquitous that the term podcast found its way into Oxford Dictionary in 2005, although it was used in 2004 for the first time (Bahadorfar & Omidvar, 2014).

Motivation

In the area of foreign/second language learning (L2), motivation has long been distinguished as one of the key determinants of L2 achievement and attainment (Owens et al., 2020). Motivation serves as the primary drive to generate learning and later acts as a function in acquiring a foreign language. One can fairly claim that without enough incentive, even the smartest learners are doubtful to master higher levels of L2 proficiency (Hawke, 2010). Given this crucial im-

portance, L2 motivation has been the subject of much research in recent decades. In this regard, L2 motivation research from a macro perspective (Gardner's sociocultural tradition, 1988) has shifted to more specific and process-oriented approaches (Kormos & Dörnyei, 2004).

Technology in Language Teaching

Educators need to recognize the importance of technology in the classroom context. Technologies can be included in classrooms setting in various ways and for various purposes. One of these technologies which is available for English learners through the world is podcasting. It is one of the newest technologies in the last century. Podcasting mentions writing or subscribing to audio and video files that can be taken and played on an extensive variety of mobile devices, such as MP3 players and iPods (Cain, 2020). Nowadays, technologies are the main and prominent part of language learning in the world for different levels. Technology can be used as an effective way of teaching and learning for English language learners (Chapelle, 2003).

There are different new technologies that assist to improve language learning among students. Some of these online technologies are electronic dictionaries, websites, presentation software, email messaging programs, computer-assisted language learning programs, chatting, listening CD-players and learning video-clips for English language learning (Nomass, 2013). As technology plays a vital role in the world, utilizing multimedia to make a context to teach English has its distinctive benefits (Al-Atabi & Alsalihi, 2020; Chen & Chung, 2008).

Ashton- Hay argued that the use of audio and video online is not new but providing stand-alone items for accessible independents learning is an innovation (as cited in Rosell- Aguilar 2007).

However, they indicate that there is a correlation between teaching pragmatic elements with technologies. The previous studies show great opportunities to increase the level of pragmatic competence with podcasting, too. The role of the traditional teachers has been changed by using technology in recent years. For example, technology makes teaching interesting, productive, and easy to learn the language elements (Yamazaki, 2019).

Technology indicates the change of social and linguistic aspects of learning a second or foreign language. It affects education and culture and provides the visual and auditory sense for the learners (Sharif, 2020). By the growth of people of those who want to learn English for various purposes through the world, the effectiveness of teaching materials become extended. Although many learners may be encountered with the traditional method of teaching, it is not meant that the traditional methods are damaging and useless. Technologies in the modern century make the language learners to be more interested and encouraged to learn various languages. It will help language learners gain confidence and extend themselves (Parrish, 2020).

With the quick advancement of science and technology, the emergence and development of multimedia technology and its usage in teaching, including sound, video, animation outcomes in English class teaching provide a good platform for modification and exploration in English teaching in the new period. The various technological tools can be used by language learners, but each one has its own techniques and application for different parts of language skills (speaking, reading, writing, and listening). Kavaliauskienė, (2008) and Sharma (2009) mentioned that there is a relationship between educational technologies and English language education.

Method
Participants

The participants were Iranian English foreign language learners learning at Ayandegera Institute, in Zanjan, Iran. Participants were chosen among both females and males, approximately aged from 18 to 35. They were selected among the learners who had been located at the Intermediate and Advanced levels based on Oxford Quick Placement test that the researchers used to have learners in the intermediate and advanced levels.

According to Ayandegera institute, there were about 400 learners; based on the Morgan's table (95% confidence, 5.0% error), 196 learners were needed for this study as a statistical society. The questionnaires of motivation named English Listening Comprehension Motivation Scale (ELCMS) developed by Hsu (2006) from Chang's Intrinsic Motivation Orientation Scale was given to 250 learners at the intermediate and advanced levels. The process of choosing the statistical society was purposive sampling.

From 250 learners, 196 were chosen as motivated learners in improving listening skill. As the researchers had 17 items for the listening questionnaire, 17 items were multiplied by 4 (68) and due to choosing the "motivated" and "very motivated" learners in this research, 4 groups were selected. Then, researchers added the whole scores in the listening questionnaire if the result was higher or equal to 68, it showed that the learner was motivated to improve his/her listening skill through podcasts. If the result of the sum of the points in the questionnaire was less than 68, the learner was not recognized as motivated and was omitted. The researchers have worked on learners who were interested in improving their listening skills.

After choosing 196 motivated learners, researchers divided them into two groups: an experimental group and a control group. In order to evaluate the differences between the effect of podcast and vodcast on the learners' listening skill, it was needed to separate podcast and vodcast groups. Thus, the experimental group was divided into two groups: a podcast group and a vodcast group. The number of learners in the podcast group was the same as the number of learners in the vodcast group and both had 65 members. The control group contained 66 learners. In the podcast group, the researchers had 30 male learners and 35 female learners. In the vodcast group, there were 26

male learners and 39 female learners. The control group contained 26 male learners and 40 female participants.

Table 1
Number of Motivated and Unmotivated Learners in Listening

Listening1

		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	0	38	15.2	15.2	15.2
	1	212	84.8	84.8	100.0
	Total	250	100.0	100.0	

Instrumentation

Multiple data collection methods were used to obtain comprehensive and useful data and also to increase the validity of the findings. The instruments are mentioned below:

Oxford Quick Placement Test. To elicit the information about the students' proficiency, and to get the homogeneous group, Oxford Quick Placement Test was used in the following rating method:

- 1-17 Beginner
- 18-27 Elementary
- 28-36 Lower-intermediate
- 37-47 Upper-intermediate
- 48-55 Advanced
- 56-60 Very advanced

English Listening Comprehension Motivation Scale Questionnaire. A questionnaire of the English Listening Comprehension Motivation Scale (ELCMS was applied to evaluate the level of motivation of learners to practice understanding English listening comprehension. The items utilized in the ELCMS were expanded from Chang's Intrinsic Motivation Orientation Scale (2001). This scale consisted of 17 statements, and these 17 statements were scored on a five-point Likert Scale, ranging from strongly disagree = 1 to strongly agree = 5, and each statement scored out of 5. ELCMS was administrated at the beginning of the study to the learners of Intermediate and Advanced levels of proficiency in order to choose EFL learners who were motivated to improve their listening skill.

Pre-Test. Pre-tests were used to check the current level of chosen learners in their listening skills. One listening task was used as a pre-test to have the learners listening scores before giving them the podcast files.

The pre-test of listening skill was chosen from Official Examination Papers from University of Cambridge TESOL Examinations, IELTS 8, test 1 (2011). The test contains four sections and the range of the scores is 1-9. The higher the scores, the better the learners' listening skills.

After the learners took the pre-test, the researcher and the supervisor of the study checked the learners' scores according to IELTS rubrics. For listening, the scores band was used as follows:

The IELTS Listening test comprises 40 questions. Each correct answer is given one mark. Scores out of 40 are changed to the IELTS nine-band scale. Scores were reported in whole and half bands. The table below shows the listening scores band:

Table 2
IELTS Listening Score Band

Band Score	Raw Score Out of 40
5	16
6	23
7	30
8	35

In order to have the validity of what the researchers had done, two authorized teachers checked the correction of the researcher

and the supervisor's scoring. Here is the result:

Table 3
Comparison of the Scores of Two Raters in Listening Pre-Test and Post-Test of Both Control and Experimental Groups

		Raters	Mean	Std Deviation	Variance	T test. sig	Pearson Product Moment Correlation
Podcast group	Listening pre	Raters1 Raters2	6.15 5.86	1.86 1.71	3.44 2.91	0.404	0.950**
	Listening post	Raters1 Raters2	6.72 6.68	1.73 1.64	3.01 2.68	0.917	0.962**
Vodcast group	Listening pre	Raters1 Raters2	6.24 6.12	1.77 1.62	3.13 2.63	0.680	0.968**
	Listening post	Raters1 Raters2	6.85 6.77	1.65 1.55	2.71 2.42	0.785	0.952**
Control group	Listening pre	Raters2 Raters1	6.11 5.962	1.76 1.65	3.098 2.710	0.621	0.941**
	Listening post	Raters2 Raters2	6.16 6.04	1.81 1.80	3.270 3.241	0.661	0.980**

This table shows the mean and standard deviation of the listening scores in pre-test and post-test in the podcast, vodcast, and control groups by two correctors. T-test was used to compare the scores and the results of this test showed that there was no significant difference between the scores of two correctors in the control group and experimental groups (Sig > 0.05). The Pearson correlation test showed that the scores of two correctors in both control and experimental groups and in pre-test and post-test exams had a high correlation with each other (Sig > 0.05).

Post-Test. Post-tests were used to check the learner's listening level of proficiency after listening to podcast files and watching vodcast files. One listening task was used as a post-test and these tests' level of difficulty was the same as the pre-tests' level of difficulty.

The post-test of listening skill was chosen from Official Examination Papers from University of Cambridge ESOL Examinations, IELTS 8, test 2. As a post-test, the test contains four sections and the range of the scores is 1-9. The higher the scores, the better the listening skill, and the differences in scores indicated the differences in the learners' level of proficiency. The scores of the post-test were examined by the researcher and her supervisor and two authorized teachers checked the accuracy of the scores. The score band in the post-test was exactly the same as the pre-test.

Podcasting and Vodcasting. The podcasts of this study were 10 audio files and 10 video files. These files were chosen by Lawsh CVR and CVI formula. Among 60 podcast files and 50 vodcast files, 6 authorized teachers voted for choosing the best files. According to the formula which is mentioned below, 10 audio files and 10 video files were chosen by the teachers and the researcher gave the files as the treatment to the experimental group. Podcasts were given to the first part of the experimental group and vodcasts were given to the second part of the experimental group.

The podcast file was downloaded from www.ESLPod.com. All the content of the listening podcasts was somewhat similar to the content of the institute textbook, as it included reading material as well as introductions with many idioms and idioms in each lesson followed by an explanation in audio format.

In accordance with the Lawsh CVR, an item should get a CVR of higher than 0.42 to be validated. Then CVI of the words was estimated applying Waltz and Bausell (1981) formula. It should be stated that the acceptable index of CVI equals 0.79 and if there is an item with a CVI less than 0.79, the item should be deleted.

Number of experts who scored items 3 or 4

CVI = --

Total number of experts

$$CVR = \frac{(Ne - N/2)}{N-2}$$

N_e = Number of experts who voted for the item N = Total number of authorized teachers

Table 4
Content Validity Ration of Podcasts According to Lawsh Formula

Podcast Files	Number of experts (N_e)	CVR	Validity
1	6	1	Valid
2	5	0.6	Valid
3	3	0	Invalid
4	2	-0.3	Invalid
5	2	-0.3	Invalid
6	3	0	Invalid
7	4	0.3	Invalid
8	4	0.3	Invalid
9	2	-0.3	Invalid
10	3	0	Invalid
11	1	-0.6	Invalid
12	5	0.6	Valid
13	2	-0.3	Invalid
14	3	0	Invalid
15	3	0	Invalid
16	4	0.3	Invalid
17	2	-0.3	Invalid
18	6	1	Valid
19	4	0.3	Invalid
20	1	-0.6	Invalid
21	3	0	Invalid
22	5	0.6	Valid
23	3	0	Invalid
24	5	0.6	Valid
25	3	0	Invalid
26	4	0.3	Invalid
27	4	0.3	Invalid
28	4	0.3	Invalid
29	3	0	Invalid
30	2	-0.3	Invalid
31	2	-0.3	Invalid
32	3	0	Invalid
33	1	-0.6	Invalid
34	5	0.6	Valid
35	3	0	Invalid
36	4	0.3	Invalid
37	2	-0.3	Invalid
38	2	-0.3	Invalid
39	2	-0.3	Invalid
40	1	-0.6	Invalid
41	4	0.3	Invalid
42	3	0	Invalid
43	1	-0.6	Invalid

Podcast Files	Number of experts (N$_e$)	CVR	Validity
44	3	0	Invalid
45	3	0	Invalid
46	1	-0.6	Invalid
47	4	0.3	Invalid
48	5	0.6	Valid
49	4	0.3	Invalid
50	3	0	Invalid
51	2	-0.3	Invalid
52	1	-0.6	Invalid
53	5	0.6	Valid
54	3	0	Invalid
55	1	-0.6	Invalid
56	3	0	Invalid
57	5	0.6	Valid
58	4	0.3	Invalid
59	1	-0.6	Invalid
60	4	0.3	Invalid

Table 5
Content Validity Ratio of Vodcasts According to Lawsh's Formula

Podcast Files	Number of experts (N$_e$)	CVR	Validity
1	6	1	Valid
2	3	0	Invalid
3	2	-0.3	Invalid
4	2	-0.3	Invalid
5	4	0.3	Invalid
6	3	0	Invalid
7	5	0.6	Valid
8	2	-0.3	Invalid
9	3	0	Invalid
10	3	0	Invalid
11	4	0.3	Invalid
12	2	-0.3	Invalid
13	4	0.3	Invalid
14	3	0	Invalid
15	3	0	Invalid
16	3	0	Invalid
17	4	0.3	Invalid
18	2	-0.3	Invalid
19	5	0.6	Valid
20	3	0	Invalid
21	2	-0.3	Invalid
22	4	0.3	Invalid
23	3	0	Invalid
24	3	0	Invalid
25	4	0.3	Invalid
26	4	0.3	Invalid
27	3	0	Invalid
28	4	0.3	Invalid
29	2	-0.3	Invalid
30	2	-0.3	Invalid
31	5	0.6	Valid
32	3	0	Invalid
33	1	-0.6	Invalid

Podcast Files	Number of experts (N_e)	CVR	Validity
34	3	0	Invalid
35	1	-0.6	Invalid
36	6	1	Valid
37	5	0.6	Valid
38	2	-0.3	Invalid
39	2	-0.3	Invalid
40	2	-0.3	Invalid
41	2	-0.3	Invalid
42	3	0	Invalid
43	1	-0.6	Invalid
44	6	1	Valid
45	6	1	Valid
46	1	-0.6	Invalid
47	3	0	Invalid
48	5	0.6	Valid
49	3	0	Invalid
50	5	0.6	Valid

Procedure

Oxford Proficiency Test was given to the learners who had been accepted in an intermediate or advanced level chosen to be in the sample size. The first questionnaire was Chang's Intrinsic Motivation Orientation Scale and the second questionnaire was designed by the researchers. The design process was that 30 items were written and out of these 30 items, 6 authorized teachers chose 16 items as valid according to Lawsh CVR and CVI formula. The learners who were motivated in improving their listening skills were chosen as the sample of the study. Motivated learners were divided into three groups. The first group was the podcast group. Thus, podcast files were given to the learners of this group. The number of learners in the podcast group was 65. The second group was the vodcast group. Learners in this group were given the vodcast files and the number of them was 65 as well. In the third group, namely, the control group, learners did not have access to any podcast or vodcast files, and they only attended the institute's regular classes.

Design of the Study

The design of this research was experimental. In the current study, a pre-test and a post-test (podcast group, vodcast group, and control group) were used for all three groups. The main independent variables were podcasts, vodcasts, and motivation and the dependent variable was listening skill.

Data Analysis

To analyze the data gathered from these members, SPSS 22 software was used. Afterward, one-sample Kolmogorov-Smirnov tests, Bar Charts, and histograms were run in order to check the distribution of the data for normality and

to see whether the hypotheses required for ANCOVA tests were met. The researchers conducted a pre-test and a post-test for all three groups. The control group did not receive any podcasts and vodcasts, but the experimental group which was divided into two groups, i.e. a podcast group and a vodcast group, received the files. This separation was aimed to compare the results of both groups in order to understand the impact of the podcast and the effect of vodcast separately on the learners' listening skills. Learners in the experimental group received podcasts and vodcast files for one month.

Results
Podcast Descriptive Indicators

Descriptive indices related to the scores of variables in the podcast experiment group were calculated and the results are presented in Table 6.

Table 6
Distribution Statistics of Variables in Podcast Group, Vodcast Group & Control Group

		N	Mean	Std. Deviation	Minimum	Maximum
podcast group	Listening pre	65	6.15	1.86	2.00	9.00
	Listening post	65	6.72	1.73	2.50	9.00
vodcast group	Listening pre	65	6.24	1.77	2.00	9.00
	Listening post	65	6.85	1.65	3.00	9.00
Control group	Listening pre	66	6.11	1.76	1.50	9.00
	Listening post	66	6.16	1.81	2.50	9.00

Table 6 shows the listening scores in the podcast and vodcast in the experimental and the control groups. According to the results of the table, the average listening scores in the post-test of the podcast and vodcast experimental groups increased but did not change in the control group.

Table 7
One-Sample Kolmogorov-Smirnov Test Output to Check the Normality of Podcast, Vodcast (Experimental) & Control Groups

	Variable	Kolmogorov-Smirnov Z	Asymp. Sig. (2-tailed)
Podcast Group	Listening pre	1.04	0.23
	Listening post	1.13	0.16
Vodcast Group	Listening pre	1.15	0.14
	Listening post	1.15	0.14
Control Group	Listening pre	1.15	0.15
	Listening post	1.32	0.06

Given the values of Sig in table 8 which are higher than 0.05, the null hypothesis meant that the variables in questions are normal.

Homogeneity of Variances. Subjects should be homogeneous in terms of variance. In this study, the Levene test was used to investigate the homogeneity of the variance, the results are presented in Table 8.

Table 8
Test of Homogeneity of Variances Between the Control and Experimental Groups in Pre-Test

group		Levene Statistic	df1	df2	Sig.
podcast	Listening pre	0.24	1.00	129.00	0.62
	Listening post	1.99	1.00	129.00	0.16
vodcast	Listening pre	0.04	1.00	129.00	0.84
	Listening post	0.40	1.00	129.00	0.53

Given the values of Sig in Table 8 which are higher than 0.05, the null hypothesis meant that the homogeneity of variances is accepted at the significant level of 0.05, and thus the hypothesis of homogeneity of the variance in the pretest group is accepted at 5% error level.

Homogeneity of Regression Slope. To check the homogeneity of the regression slope, the researchers needed to compute the F value of the interaction between the covariate and the independent variable, if this index is not significant (Sig > 0.05), this default is met. The outcomes of the study are as follows:

Table 9
Regression Slope Homogeneity Test Between the Covariate and Independent Variables of the Podcast and Vodcast

Source	F	Sig.	Conclusion
group * Listening pre	2.89	0.07	verify the regression slope homogeneity
group * Listening pre	3.09	0.06	verify the regression slope homogeneity

Given the values of Sig in table 9 which are higher than 0.05, the null hypothesis meant the homogeneous slope of the regression line between the covariate and independent variables was at the significance level.

The Linearity of the Correlation Between the Covariate Variable and the Independent Variable. One of the presuppositions of using ANCOVA test is that the pre-test variable (covariate) and the independent variable must be linearly related to each other.

To check the linearity of the correlation of the independent and the covariate, the researchers need to calculate the F of the correlation variable. If this index is significant, this hypothesis is respected. The results of the survey are as follows:

Table 10
The Test of Linearity of the Correlation of the Independent and the Dependent Variable in the Podcast Group

Group	Source	F	Sig.	Conclusion
Podcast Group				linear correlation between
	Listening pre	1027.40	0.000	the covariate and the independent variable
Vodcast Group				linear correlation between
	Listening pre	1135.1	0.000	the covariate and the independent variable

Given the values of Sig in Table 10 which are less than 0.05, it means the hypothesis of a linear correlation between the covariate and the independent variable is at the significance level.

Testing Research Hypotheses

Hypothesis 1: Listening to Podcasts has a Significant Effect on Improving Listening Skills. Covariance analysis was used to test the above hypothesis. As noted, the hypothesis required for the analysis of covariance was examined.

According to the above hypothesis, the hypothesis is as follows:

H0: There is no significant difference between listening to podcasts and watching vodcasts in their effect on the learners' listening skills.

H1: There is a significant difference between listening to podcasts and watching vodcasts in their effect on the learners' listening skills.

The results of the analysis of covariance are listed in the following tables:

Table 11
The Result of Covariance Analysis to Examine the Improvement of Listening Skill by Podcast

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	370.32	2	185.16	528.16	.000
Intercept	6.17	1	6.17	17.59	.000
Motivation pre	360.19	1	360.19	1.03E3	.000
group	9.07	1	9.07	25.87	.000
Error	44.87	128	0.35		
Total	5840.00	131			
Corrected Total	415.20	130			

As shown in Table 11, the value of F in the analysis of covariance for the listening improvement by podcasts variable is 25.87 and since Sig = 0.000 is less than 0.05, it is significant at the 0.05 level and assuming no effect of listening improvement through listening to podcasts is rejected. Thus, it can be said that

the means of the two groups on the post-test after adjusting for pre-test scores are significantly different. As displayed in the previous tables, the mean score of listening in the control group was 6.11 in the pre-test and 6.15 in the post-test, while the mean score of listening in the podcast group (experimental group) in the pre-test was 6.14 and 6.71 in the post-test. Considering the significant difference between the post-test scores in the two control and experimental groups, it shows that by removing the pre-test co-factor, listening to the podcast increases the power of listening skills.

Hypothesis 2: Watching Vodcasts has a Significant Effect on Improving Listening Skills. Covariance analysis was used to test the above hypothesis. As noted, the hypothesis required for the analysis of covariance was examined.

According to the above hypothesis, the hypothesis is as follows:

H0: There is no significant difference between the Intermediate and Advanced learners in their watching vodcasts.

H1: There is a significant difference between the Intermediate and Advanced learners in their watching vodcast. The outcomes of the analysis of covariance are listed in the following tables:

Table 12
The Result of Covariance Analysis to Examine the Improvement of Listening Skill by Vodcasts

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	362.38	2	181.19	592.84	**.000**
Intercept	5.65	1	5.65	18.48	**.000**
Motivation pre	346.92	1	346.92	1.13E3	**.000**
group	10.67	1	10.67	34.89	**.000**
Error	39.12	128	0.31		
Total	5936.15	131			
Corrected Total	401.50	130			

As shown in Table 12, the value of F in the covariance analysis for the listening improvement variable is 34.89 and since Sig = 0.000 is less than 0.05, it is significant at the 0.05 level and it is rejected that there was no effect of listening improvement through watching vodcast. Thus, it can be concluded that the mean of two groups in the post-test after adjusting the pre-test scores is significantly different. As shown in the previous tables, the mean score of listening in the control group was 6.11 in the pre-test and 6.15 in the post-test, while the mean score of listening in the experimental group was 6.23 in the pre-test and 6.84 in the post-test. Considering the significant difference between the post-test scores in the control and experimental groups, it is determined that, by removing the pre-test co-factor, watching vodcasts has a significant effect on improving listening skills.

Hypothesis 3: There is a Significant Difference Between Listening to Podcasts and Watching Vodcasts in Their Effect on Listening Skill. Covariance analysis was used to test the above hypothesis. As noted, the hypothesis required for the analysis of covariance is examined. The results of the analysis of covariance are listed in the following tables.

According to the above hypothesis, the hypothesis is as follows:

H0: There is no significant difference between listening to podcasts and watching vodcasts in their effect on the learners' listening skills.

H1: There is a significant difference between listening to podcasts and watching vodcasts in their effect on the learners' listening skills.

To test the above hypothesis, researchers used the t-test for two independent samples, which are reported in the Table 13.

Table 13
Independent Samples Test Group

		Levene's Test		t-test for Equality of Means				95% Confidence Interval of the Difference	
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Post test	Equal variances assumed	0.16	0.69	0.44	128.00	0.66	0.13	-0.46	0.72
	Equal variances not assumed			0.44	127.66	0.66	0.13	-0.46	0.72

To perform the above test, the researchers first needed to examine the default variance equation using Levon's test. The results in Table 14 show that the value of Sig is 0.69 and higher than 5%, thus assuming equality of variances is accepted. T-tests results also show that the Sig value is 0.66 and higher than 0.05. Therefore, it shows that there is no significant difference between listening to podcasts and watching vodcasts in improving listening skill. Although podcast learning mean was 6.72 and vodcast learning mean was 6.85 (it indicates that vodcast learning outperformed podcast learning in improving listening skill), the difference between the two means is not statistically significant.

Hypothesis 4: There is a Significant Difference Between the Intermediate and Advanced Learners in Their Improvement in Listening Skills. According to the above hypothesis, the hypothesis is as follows:

H0: There is no significant difference between the Intermediate and Advanced learners in their improvement in listening skills.

H1: There is a significant difference between the Intermediate and Advanced learners in their improvement in listening skills.

To test the above hypotheses, the researchers used the Levene's test, which is discussed in the Table 14:

Table 14
Independent Samples Test Group

			Levene's Test		t-test for Equality of Means				95% Confidence Interval of the Difference	
			F	Sig.	T	df	Sig.	Mean Difference	Lower	Upper
Experimental	listening	Equal variances assumed	0.47	.50	2.11	63	.04	.32	.17	0.63
		Equal variances not assumed			2.11	50.98	.04	.32	.02	0.63
	speaking	Equal variances assumed	0.03	.87	1.65	63	.11	.27	-.06	0.60
		Equal variances not assumed			1.64	51.02	.011	.27	-.06	0.61

To perform the above test, the researchers first checked the default equality of variances using the Levene's test. The results of Table 15 show that the Sig value in the listening group is 0.50 and higher than 0.05; therefore, the hypothesis of the equality of variances is accepted. T-test results also show that the Sig value is 0.04 and less than 0.05, thus it follows that the H0 hypothesis is accepted. In other words, there is a significant difference between Intermediate and Advanced learners in their improvement in listening skills and Advanced learners are better in improving their listening skills according to the results.

Discussion of Findings

This study was designed to collect data from the questionnaires and the results of the respondents were gathered to obtain the effect of podcasting and vodcasting and also the differences between them. The data analysis in this study indicates the improvement of the listening skill of the participants by the use of podcasts. The podcasts were used for different situations such as formal, informal, direct, indirect, and how to make invitations and requests. All the podcasts were used for all participants. The data analysis shows improvments in post-tests, which means that technologies like podcasts and vodcasts can help better learning and teaching.

The objective of this research was to investigate the extent to which learning through listening materials would help the learners have access to the instruments by which they can improve their skills easily. This kind of study was not supported in previous similar studies and motivated the researchers to concentrate on this research.

The in-depth files and correction revealed that there is a significant difference between the learners who are using materials in order to reach improvement and the learners who are just attending foreign language classes.

Results of the First Research Question

The first research question asked, "Does the application of podcasts significantly affect motivated learners' improvement in listening skills?"

As mentioned before, first the researchers chose motivated learners who were interested in improving their listening skills by podcasts, through using a questionnaire (ELCMS). Then, among these motivated learners, a podcast group was chosen. After giving the pre-test to the learners, the podcast files were given to the learners, and later the post-test was presented. The control group did not get the podcast files.

According to the results of the Covariance Analyses, it was revealed that listening to podcasts has its effect on motivated learners' improvement in their listening skills. As table 12 shows, the F value for the effect of podcasts on motivated learners' listening skill is 25.87 (F = 25.87) at a significant level ($P < 0.05$) and by comparing the means in both pre and post-tests in both control and podcast (experimental) groups, it was revealed that there is a significant difference between pre-test mean (M = 6.15) and post-test mean (M = 6.72) in the experimental group. But there is little significant difference in pre-test mean (M = 6.11) and post-teat mean (M = 6.16) in the control group. It means that listening to podcasts improves the motivated learners' listening skill and the null hypothesis which says "the application of podcast does not affect the motivated learners' listening skill" will be rejected.

The findings in this section is in line with what was found by Al Qasim and Fadda (2013) who made a research about the efficacy of podcasts on EFL higher education learners' listening comprehension, and claimed that podcast instructions cause a significant difference in listening comprehension. Another study by Stefancik, and Stradiotová, (2020) aimed to examine whether or not podcast significantly impacts on learners' listening comprehension. The findings demonstrated that there was a significant difference in post-test scores between the learners who were taught employing podcasts and learners who were taught without podcasts. It can be perceived from the data analysis using ANOVA that the significance value (Sig. = 0.010) is lower than 0.05. It means that podcast has a significant impact on learners' listening comprehension.

Results of the Second Research Question

The second research question asked, "Does the application of vodcasts significantly affect motivated learners' improvement in listening skills?"

According to the results of the Covariance Analyses, it was revealed that watching vodcasts has an effect on motivated learners' improvement in their listening skills. As table 13 shows, the F value for the effect of vodcasts on motivated learners' listening skill is 34.89 (F = 34.89) at a significant level (P < 0.05) and comparing the means in both pre and post-tests in both control and vodcast (experimental) group revealed that there is a significant difference between pre-test mean (M = 6.24) and post-test mean (M = 6.85) in the experimental group. While there is little significant difference in pre-test mean (M = 6.11) and post-teat mean (M = 6.16) in the control group. It means that watching vodcasts improves motivated learners' listening skill and the null hypothesis which says "the application of vodcast does not affect the motivated learners' listening skills" will be rejected.

The findings of this study coincide with Pradana's (2016), who conducted research on the effectiveness of video use in improving listening ability. He showed that students' grades and speech learning stages are improved by using video casts to improve students' attitudes. The improvement in students' scores can be seen in the increase in students' listening scores from the primary study and the scores after the implementation of listening instruction using video casts in the first cycle. The average score of students in the pilot study was 60.03, while the mean score at the end of the study was 72. Specifically, 20 students out of 20 (100%) scored higher than or equal to 60 at the end of the study, while in the pilot study, 11 students out of 20 (55%) scored higher than or equal to 60. Implementing video casts in the classroom, all students were expected to score at least 60 times or more (C +). Given that the class was heterogeneous, which means that students were classified based on their level of knowledge and skills, the criteria for success were determined exactly 100%. In another study by Faramarzi et al., (2019), the impact of vodcasting tasks on the development of EFL listening comprehension in an online application was examined. The results showed that there was a statistically significant increase in listening comprehension scores from pre-test to post-test. The difference was computed using Eta square statistics, which indicates the size of the large effect. It was determined that learners' superior performance was associated with vodcasting tasks. Also, the Pearson-product correlation coefficient was used which showed a significant positive relationship between participants' participation in vodcasting tasks and their test performance. The study will be useful for teachers, professors, curriculum designers, and all academic departments.

Results of the Third Research Question

The third research question asked, "Is there any significant difference between listening to podcasts and watching vodcasts in their impact on motivated learners' improvement in listening skill?"

According to the results of the t-test, it was showed that there is no significant difference between listening to podcasts and watching vodcasts in their effect on the listening skills. As table 14 shows, the value of Sig is 0.69 and higher than 5%, thus assuming equality of variances is accepted. T-tests results also show that the sig value is 0.66 and higher than 0.05. Therefore, it turns out that the H0 hypothesis "There is no significant difference between listening to podcasts and watching vodcasts in improving listening skill," is accepted. Although podcast learning mean was 6.72 and vodcast learning mean was 6.85 (it indicates that vodcast outperformed podcast in improving listening skills). The difference is not statistically significant.

The outcomes of this study are in line with Nawir's (2020) study which investigates the undergraduate experiences, attitudes, and understanding of podcast and vodcast use. The results showed that podcasts and vodcasts are an additional useful resource for learning, especially when applied in conjunction with speaker slides and as a device for amendment /evaluation. This online content has been translated into more understanding learners, complementing, and reinforcing their learning without substituting traditional lectures. There is space for movable media files to become a standard method in higher education. Another study by Namaziandost and Nasri (2019) showed that audio-visual materials can facilitate listening comprehension. In other words, when the learners' audio and visual senses are involved, they can comprehend better.

Results of the Fourth Research Question

Is there any significant difference between the improvement of Intermediate learners or Advanced learners in their listening skills?

According to the results of t-test in Table 14, the significance level is 0.039 and less than 5%, thus the listening ability is significantly different in the intermediate and advanced groups and more progress has been made in the advanced group.

The in-depth files and correction showed that there is a significant difference between the learners who are using materials in order to get improvement and the learners who just attend foreign language classes.

Conclusion

The aim of this study was to examine the impact of podcasts and vodcasts on motivated EFL learners through the improvement of their listening skills. The first major finding was that listening to podcasts and watching vodcasts both

improve and enhance the listening skill of motivated learners. In explaining this finding, it can be said that nowadays, learners are interested in using technology in the classroom environment; mobile phones and the internet is almost accessible to everybody. Finally, motivated learners who go to institute classes in order to improve their knowledge welcome entering technology to their learning world. Thus, listening to podcasts and watching vodcasts improve motivated learners' listening skills.

The second major finding was that there is no significant difference between listening to podcasts and watching vodcasts in their effect on motivated learners' listening skills. In explaining this finding, it can be said that as vodcasts are a subcategory of podcasts; there is no difference between the effect of them on learners. In addition, it can be concluded that there is no difference between the situation when learners' both audio and visual senses are involved with learning and the situation in which merely the audio ability is involved.

Although using technology in the learning process is necessary, it is ignored in schools and institute classes. However, today's world seems to use the podcast and vodcast in educational systems. This is an important factor in improving learners' skills and other factors include learning styles, strategies, teachers and parents' role, etc.

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The Effect of Task Type on Motivational Fluctuations: The Case of Iranian EFL Senior High School Learners

Research Article

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Abstract

Previously regarded as a static concept, motivation has now come to be viewed as an entity which is permanently in a state of flux. The dynamic nature of motivation and the concept of motivational fluctuations became widespread as complex dynamic systems theory (CDST) gained more popularity and credence among scholars in sciences and then gradually in the field of applied linguistics. Inspired mainly by this current view of motivation as a dynamic phenomenon, the present study sought to investigate the potential role of task type in motivational fluctuations experienced by EFL learners at the high school. In so doing, the possible role of gender was also taken into consideration. To gather data, the researchers

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made use of Motometer as a commonly used device for gauging learners' self-reported levels of motivation over time as well as interviews. In line with the findings, task type was shown to be a major determiner of motivational changes. Among the three tasks implemented in the study, task 2 with a problem-solving focus was characterized as the most inspiring for learners followed by task 3 which was a picture-prompted task. Furthermore, as regards the second research question, gender was found to be of no significance during task performance. The study is thought to have fruitful implications for all educational stakeholders, particularly in the context of secondary education, as well as in language school settings.

Introduction

Motivation is regarded as a key variable in educational psychology and language pedagogy, as well as a focal determiner of success in language learning (e.g., Al-Hoorie & MacIntyre, 2019; Bernaus & Gardner, 2008; Chalak & Kassaian, 2010; Dörnyei, 1998, 2005, 2009a; Gardner, 2010; Lamb et al. 2020). Though a deep-seated concept in education, motivation historically used to be regarded as a static entity, which could be spurred in learners generally by means of external stimuli (e.g., Williams & Burden, 1997). Thus, viewing motivation as a dynamic concept which is always in a state of flux, according to complex dynamic systems theory (CDST, see for example Larsen-Freeman, 2019), is a quite recent phenomenon.

Among the researchers who have centered on this dynamic nature of motivation, mention can be made of Pawlak (2012), Pawlak et al. (2014), and Waninge et al. (2014). As Pawlak (2012) elaborates, only quite recently has research on motivation come to terms with dynamic character of motivation, delving into the fluctuations occurring in motivational intensity over different time intervals. This renovated perspective toward motivation as a changing, dynamic entity, according to Waninge et al. (2014), has come to be increasingly endorsed by scholars and researchers in the field.

Having its roots in CDST and emergentism (de Bot, 2008; Dörnyei, 2009b; Jessner, 2008; Larsen–Freeman, 2006; Larsen–Freeman & Cameron, 2008; Mercer 2011; Verspoor et al. 2008), dynamic view of motivation, as Waninge et al. (2014) state, rests upon three key pillars, namely *change*, *stability* and *context*. In the tripartite model of dynamic motivation offered by Waninge et al. (2014) motivation is said to be in a permanent state of flux. Nevertheless, motivation like other dynamic systems is said to be prone to reach a settled, stable state, known as attractor state in its developmental path. At this point, learners' behavior ensuing from their motivation starts to get more hardwired and entrenched. The third component of motivation as a dynamic system, context,

plays a key part in moving back and forth between dynamicity and stability and in striking a balance between the two states.

A brief glance through the history of probes into motivation helps reveal that the greatest bulk of research in this regard has addressed issues like motivational types and orientations only in a static manner. Though in the current decade, an increasing number of researchers have embarked on investigating the dynamicity of motivation (e.g., Pawlak, 2012; Pawlak et al. 2014; Waninge et al. 2014), there is still a dire need for further in-depth studies to divulge the true nature of motivational fluctuations. Furthermore, few researchers, if any, have explored the viable effect of task type on motivational changes in learners over time. Striving to fill in the mentioned gap, the researchers in the current study probed the effect of different task types on motivational fluctuations among Iranian EFL senior high school learners.

Literature Review

Motivation is indubitably a key prerequisite for learning a foreign or second language (e.g., Dörnyei, 2005; Lai, 2011). As Dörnyei and Skehan (2003, p. 614) maintain, "motivation is responsible for *why* people decide to do something, *how long* they are willing to sustain the activity, and *how hard* they are going to pursue it." Likewise, as Dörnyei (2005, p. 65) puts it, "motivation is of great importance in SLA: It provides the primary impetus to initiate L2 learning and later the driving force to sustain the long and often tedious learning process."

The main challenge facing teachers is providing for motivational sustainability. Indeed, making learners motivated in the process of learning is in itself a serious challenge to most learning environments, but sustaining the motivation sparked in learners is a more demanding issue in need of further deliberation (e.g., Williams & Burden, 1997). Though motivation in the learning context has long been in the foreground of attention of educational researchers (e.g., Jin, 2014), the concept of motivation has mostly been regarded as a static and stable entity.

The concept of 'task motivation' as one of the fundamental cornerstones of the present study has been characterized in a number of different ways throughout the history. Traditionally, it was construed "as the sum of trait and state motivation, with the former referring to stable and enduring motivational dispositions that are largely task-independent, while state motivation concerns largely task-dependent, situation-specific motives that are thus transitory and temporary motivational responses or conditions" (Dörnyei, 2019, p. 56).

However, taking a more progressive perspective, Dörnyei (2019) characterizes task motivation as a multifaceted construct which entails a complex interplay between various learner-related, context-specific and task-driven factors. Among the 'learner-specific factors', he refers to the prominent role of personality characteristics, learner competence and the like. As regards 'learning situational factors', task motivation, according to Dörnyei, is influenced by a variety

of factors including the influence of teacher, group dynamics and environmental variables. Finally, 'task-related factors' comprising different task features, such as its content, structure and outcome, are the last influential variable in determining the degree of task motivation.

Dynamic view of motivation as a new outlook arising out of the attempts made by researchers like Dörnyei (2001, 2005), Ortega (2009), Pawlak (2012), Pawlak et al. (2014), and Waninge et al. (2014) has paved the way, in recent years, for a more thoroughgoing analysis of learners' motivation with an eye on the viability of motivational fluctuations over time. As Hiver and Papi (2020, p. 125) maintain, "contributions from complexity to the study of L2 motivation have been methodological, as an aid to designing programs of research that prioritize adaptive and developmental processes." Though researchers are increasingly becoming interested in exploring the minutiae of motivational fluctuations, probes into dynamic nature of motivation are still scant and inconclusive. Nevertheless, in what follows, the researchers strive to present a brief overview of the available body of literature on the issue.

At the outset of the current decade, Campbell and Storch (2011) conducted an investigation into motivational fluctuations occurring to university students learning Chinese as a foreign language over a period of one semester at an Australian university. Data were elicited mainly through semi-structured interviews. Based on their findings, learning environment factors were the most important variables which had impacted motivation both in a positive and negative sense. Moreover, the findings indicated that employing strategies to bolster learners' sense of L2 selves may help learners overcome negative experiences, and continue with the enterprise of L2 learning.

In a later analysis, Azarnoosh et al. (2015) explored the longer-term fluctuations in learners' motivation. In addition, the role of other factors such as learners' age groups, learning environment and socio-cultural context in spawning different motivational patterns was also taken into account by the researchers. Using the questionnaire devised and validated by Taguchi et al. (2009), they found that though students at all levels had positive motivational dispositions, high school students enjoyed a lower motivational level compared to university students.

Pawlak's study (2012), on the other hand, aimed to explore the temporal variation in the intensity of the motivation of Polish vocational senior high school learners. Selecting a sample of 28 Polish senior high school learners, Pawlak embarked on a survey over a period of 4 weeks. To apply triangulation, the researcher made use of a number of instruments, including a motivation questionnaire containing 42 6-point Likert-scale items, interviews with 11 students, a motivational grid, an evaluation sheet, a questionnaire for the teacher and detailed plans of the three lessons which were provided by the teacher. The results provided evidence for the fact that both the nature and magnitude of motivation are non-stable and subject to change over time.

In their probe into dynamic nature of motivation, Waninge et al. (2014) selected four students including two males and two females in an attempt to run

an intensive, individual-level microanalysis. Spanning over a two-week period, the study benefited from 'Motometer', a classroom observation form, and a motivation/attitude questionnaire. The results provided a clear illustration that student motivation is susceptible to variation, even on a rather short time scale.

In terms of research objectives and focus, MacIntyre and Serroul's (2015) investigation might be said to fall more on a par with the current study aims. Their study also centered on motivational fluctuations during task performance. Using a variety of instruments, including oral tasks and idiodynamic ratings, they tapped into the possible changes occurring in task motivation based on approach-avoidance ratings. The findings pointed toward a high degree of variability in the participants' ratings of their motivation. Furthermore, a strong correlation was reported between the learners' can-do ratings and their idiodynamic mean scores.

In a later probe, Yaghoubinejad et al. (2016) studied the motivational fluctuations of a cohort of Iranian EFL learners over time. Using a three-phase semi-structured interview, they came up with a great extent of motivational variability across time. These changes in learners' motivation were reported to be caused by several factors, including the amount of enjoyment, internal motives, and learners' future prospect. Thus, enhancing learners' future image and increasing the degree of task motivation were pinpointed as two effective factors contributing to more positive motivational fluctuations.

Finally, Mohammadzadeh (2019) conducted a research about motivational fluctuations during task-supported language teaching. Furthermore, the study strove to investigate the potential differences between the teacher's and the learners' evaluations of classroom motivation. As its last objective, the research aimed to compare self-reported motivation levels in TSLT and non-TSLT groups. A total of 13 language school learners participated in the study. Next, the participants were divided into two groups dubbed TSLT and non-TSLT in line with the aims of the study. Following the lead of the previous studies like Waninge et al. (2014), the research made use of lesson plans, Motometers, teacher observation sheets, and semi-structured focus group interviews. The findings revealed that motivation is susceptible to change under the influence of some factors such as instructional focus, learners' dispositions on a particular day, group dynamics, the teacher's motivational state, and a number of contextual variables like the day of the week, and school schedule. Moreover, the findings culminated in the inconsistency between the teacher-researcher's and the students' evaluations of motivation for each classroom session. Furthermore, higher levels of motivation were observed in the TSLT group during the investigation of diverse parts of language such as listening, reading, and grammar.

As stated earlier, probes into dynamic nature of motivation are still scant and the results are inconclusive. Most motivation-oriented research, to date, has looked upon the phenomenon as a stable concept. The potential effect of task type on motivational changes in learners over time is another under-researched area in need of further exploration. Informed by this gap in the lit-

erature, hence, the researchers in the current study delved into the possible effect of task type on learners' motivational fluctuations. In so doing, the role of gender was also explored. In line with the research objectives stated above, the following two research questions were formulated.

RQ1: Does task type have any significant effect on motivational fluctuations among Iranian EFL high school learners?

RQ2: Does gender play a role in motivational fluctuations resulting from being exposed to different task types?

Method
Design of the Study

The current study enjoyed a mixed methods design, in that it drew on both quantitative and qualitative data. As the quantitative phase preceded and was complemented by the qualitative one, in line with Creswell and Plano Clark's (2011) taxonomy the study followed explanatory sequential design of mixed-methods research. The quantitative phase of the study relied on causal-comparative design, in which the potential impact of task type on learners' motivational fluctuations was probed. Thus, the independent variable of research was task type and the dependent variable was changes in learners' motivational state. In the qualitative phase, however, interviews were conducted to tap into learners' perceptions about the role of task type in sparking motivation.

Participants

To conduct the study, a total of 40 Iranian senior high school learners were selected as the participants. The learners were at the eleventh grade of senior high school and aged around 17. Both genders were included in the study. For recruiting participants, two senior high schools in Boukan were targeted (one for males and the other for females). Though at first 20 students were selected from each gender, the final number of participants was reduced to 36 (19 males and 17 females) due to some incomplete answers given by a number of participants.

Instrumentation

The main means of data collection for the current study was Motometer. The instrument was an adapted version of the tool utilized by Waninge et al. (2014), and was intended to tap into learners' self-ratings of their motivation levels at different time intervals during the same task, as well as across different tasks. Like the original device, the Motometer used in the current study fell on a scale of 0 (low motivation) to 100 (high motivation). However, unlike the original instrument which elicited motivational fluctuations in a time interval of 5 minutes, the current study analyzed motivational changes in one-minute intervals.

Data Collection Procedure

As stated earlier, the researchers in the current study embarked on pinpointing the potential effect of task type on motivational fluctuations among Iranian EFL high school learners. To gather data, the study made use of Motometers as the main means of data collection. In doing so, 40 Iranian senior high school learners were selected as the study participants (it is worth reiterating that the final number of participants was reduced to 36). Successive to briefing the participants regarding the research objectives, the researchers gave them three types of tasks (fill-in-the-blank, problem solving and picture prompt) to perform on. During the process of task completion, they were expected to report their level of motivation using the research tool, i.e. Motometer.

It is worth noting that the logic behind the selection of these task types was the degree of involvement each one engendered in learners. Thus, it was postulated that fill-in-the-blank type is likely to bring about the lowest level of engagement and hence spark lower levels of motivation. On the other hand, picture prompt and problem solving tasks were posited to produce higher levels of involvement, interest and motivation. Having these postulations in mind, the researchers provided the required guidelines for the learners concerning how the Motometers are to be filled at 1-minute time intervals (it is worth reiterating that the time interval in the current study was reduced from five to one minute, mainly owing to the short duration of each task). An attempt was also made to make the process as unobtrusive as possible to let the learners proceed with the normal procedure of task completion.

Data Analysis

To analyze the data, use was made of SPSS (version 22). To be more specific, in dealing with the first research question which investigated the possible effect of task type on motivational fluctuations among Iranian EFL high school learners, the nonparametric equivalent of one-way ANOVA (Kruskal Wallis test) was run. This decision was made due to lack of normality in the distribution of scores. Furthermore, regarding the second research question exploring the role of gender in motivational fluctuations resulting from being exposed to different task types, the non-parametric equivalent of independent samples t-test (Mann Whitney U test) was utilized. In dealing with the interview data, frequencies and percentages were used to tabulate learners' attitudes concerning task motivation.

Results
Findings Obtained for Research Question One

The first research question of the study probed the possible effect of task type on motivational fluctuations among Iranian EFL high school learners. To analyze this research question, initially the scores obtained on three tasks were screened in terms of normality of distribution. Table 1 illustrates the results of

normality tests (Kolmogorov-Smirnov and Shapiro-Wilk) for the three tasks at different time intervals (minutes 0-1, 1-2, 2-3, 3-4, and 4-5).

Table 1
Normality Test Results Obtained for the Three Tasks at Different Time Intervals

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Minute (0-1)	.159	108	.000	.934	108	.000
Minute (1-2)	.139	108	.000	.938	108	.000
Minute (2-3)	.157	108	.000	.907	108	.000
Minute (3-4)	.179	108	.000	.886	108	.000
Minute (4-5)	.213	108	.000	.881	108	.000
a. Lilliefors Significance Correction						

As is evident from the table, the obtained *p*-value is lower than .05 in all cases, and hence the distribution of data violates the conditions for normality. In line with the obtained results, the non-parametric equivalent of one-way ANOVA (Kruskal Wallis Test) was used to compare the means for three tasks. Tables 2 and 3 illustrate the obtained mean ranks and Kruskal-Wallis statistics for three tasks during minute 0-1.

Table 2
Mean Ranks Obtained for Three Tasks During Minute 0-1

	Task	N	Mean Rank
Minute (0-1)	Task 1	36	53.81
	Task 2	36	61.81
	Task 3	36	47.89
	Total	108	

As is evident from Table 2, the mean ranks obtained for tasks 1, 2 and 3 are 53.8, 61.8 and 47.8, respectively. Therefore, the highest mean rank gained belongs to task 2, and the lowest one is that of task 3. However, to see whether these differences are statistically significant, Kruskal-Wallis results in Table 3 are consulted.

Table 3
Kruskal-Wallis Results Comparison of Three Tasks During Minute 0-1

	Minute (0-1)
Chi-Square	3.683
df	2
Asymp. Sig.	.159
a. Kruskal Wallis Test	
b. Grouping Variable: Task	

As Table 3 illustrates, the obtained *p*-value is not statistically significant ($p = .15 > .05$). Thus, the differences between the mean ranks of three tasks during the first minute are non-significant. Tables 4 and 5 illustrate the obtained mean ranks and Kruskal-Wallis statistics for three tasks during minute 1-2.

Table 4
Mean Ranks Obtained for Three Tasks During Minute 1-2

	Task	N	Mean Rank
Minute (1-2)	Task 1	36	59.31
	Task 2	36	47.33
	Task 3	36	56.86
	Total	108	

As is seen in Table 4, the mean ranks obtained for tasks 1, 2 and 3 equal 59.3, 47.3 and 56.8, respectively. Therefore, the highest mean rank gained belongs to task 1, and the lowest one is that of task 2. However, to see whether these differences are statistically significant, Kruskal-Wallis results in Table 5 are consulted.

Table 5
Kruskal-Wallis Results Comparison of Three Tasks During Minute 1-2

	Minute (1-2)
Chi-Square	3.009
df	2
Asymp. Sig.	.222
a. Kruskal Wallis Test	
b. Grouping Variable: Task	

As Table 5 shows, the obtained *p*-value is not statistically significant ($p = .22 > .05$). Thus, the differences between the mean ranks of three tasks during the second minute are non-significant. Tables 6 and 7 illustrate the obtained mean ranks and Kruskal-Wallis statistics for three tasks during minute 2-3.

Table 6
Mean Ranks Obtained for Three Tasks During Minute 2-3

	Task	N	Mean Rank
Minute (2-3)	Task 1	36	51.36
	Task 2	36	56.19
	Task 3	36	55.94
	Total	108	

As Table 6 shows, the mean ranks obtained for tasks 1, 2 and 3 equal 51.3, 56.1 and 55.9, respectively. Therefore, the highest mean rank gained belongs to task 2, and the lowest one is that of task 1. However, to see whether these differences are statistically significant, Kruskal-Wallis results in Table 7 are consulted.

Table 7
Kruskal-Wallis Results Comparison of Three Tasks During Minute 2-3

	Minute (2-3)
Chi-Square	.560
df	2
Asymp. Sig.	.756
a. Kruskal Wallis Test	
b. Grouping Variable: Task	

Based on Table 7, the obtained *p*-value is not statistically significant (*p* = .75 > .05). Thus, the differences between the mean ranks of three tasks during the third minute are non-significant. Tables 8 and 9 illustrate the obtained mean ranks and Kruskal-Wallis statistics for three tasks during minute 3-4.

Table 8
Mean Ranks Obtained for Three Tasks During Minute 3-4

	Task	N	Mean Rank
Minute (3-4)	Task 1	36	53.22
	Task 2	36	56.04
	Task 3	36	54.24
	Total	108	

As is evident from Table 8, the mean ranks obtained for tasks 1, 2 and 3 equal 53.2, 56.04 and 55.24, respectively. Therefore, the highest mean rank gained belongs to task 2, and the lowest one is that of task 1. However, to see whether these differences are statistically significant, Kruskal-Wallis results in Table 9 are consulted.

Table 9
Kruskal-Wallis Results Comparison of Three Tasks During Minute 3-4

	Minute (3-4)
Chi-Square	.156
df	2
Asymp. Sig.	.925
a. Kruskal Wallis Test	
b. Grouping Variable: Task	

As Table 9 illustrates, the obtained *p*-value is not statistically significant (*p* = .92 > .05). Thus, the differences between the mean ranks of three tasks during the fourth minute are non-significant. Tables 10 and 11 illustrate the obtained mean ranks and Kruskal-Wallis statistics for three tasks during minute 4-5.

Table 10
Mean Ranks Obtained for Three Tasks During Minute 4-5

	Task	N	Mean Rank
Minute (4-5)	Task 1	36	47.54
	Task 2	36	50.82
	Task 3	36	65.14
	Total	108	

As Table 10 indicates, the mean ranks obtained for tasks 1, 2 and 3 equal 47.5, 50.8 and 65.1, respectively. Therefore, the highest mean rank gained belongs to task 3, and the lowest one is that of task 1. However, to see whether these differences are statistically significant, Kruskal-Wallis results in Table 11 are consulted.

Table 11
Kruskal-Wallis Results Comparison of Three Tasks During Minute 4-5

	Minute (4-5)
Chi-Square	6.654
df	2
Asymp. Sig.	.036
a. Kruskal Wallis Test	
b. Grouping Variable: Task	

According to Table 11, the obtained p-value is not statistically significant ($p = .03 < .05$). Thus, the differences between the mean ranks of three tasks during the fifth minute are found to be significant.

Interview Results

To consolidate the findings and triangulate data collection procedure, the researchers also ran an interview with the participants. The main questions raised in the interview were as follows:

1) In which of the activities, did you feel more motivated? Why?

2) At which time during each task, did you feel the highest level of motivation? Why?

As regards the first interview question seeking the most inspiring task, as the results indicated, the majority of participants had opted for task 2 which was a problem-solving task. The next type of task that was reported to have sparked more motivation was task 3 (a picture-prompted task). It is worth noting that since some of the participants had chosen two tasks as more motivating, the frequency of responses for the first interview question amounted to 56. Table 12 shows the frequencies and percentages reported for each of the three tasks in terms of the perceived power of tasks for inspiring motivation.

Table 12
The Frequencies and Percentages of Different Tasks Perceived as More Inspiring

Task	Frequency	Percentage
1	3	6.5%
2	29	63%
3	14	30.5%

The principal reasons referred to by the interviewees for choosing task 2 (problem-solving task) as the most motivating and task 3 (picture-prompted task) as the second most inspiring task are listed in Table 13.

Table 13
The Frequencies and Percentages of Different Reasons Mentioned by Learners as the Characteristics of More Inspiring Tasks

Characteristics	Frequency
Challenging nature and level of difficulty	22 = 47%
Ease of the task and convenience	11 = 23%
Encouraging and exciting nature of the task	6 = 13%
Novelty, newness and being up-to-date	4 = 8.5%
Authenticity and genuineness	4 = 8.5%

As is seen in the table, the challenging nature of task was mentioned as the key factor – with the highest frequency (22) and percentage (47%) – giving rise to motivational appeal created by the task. The second reason underlying task appeal, in line with the interviewees' responses, was ease of task and its convenience. However, novelty and authenticity of the task were found to be the least influential factors in this regard from the participants' perspective (both enjoying the same frequency and percentage, i.e. 4 and 8.5, respectively).

As regards the challenging nature of tasks, one of the respondents maintained that he had chosen task 2 as the most motivating because it contained *"good and mental questions related to the mind"*; another said she found task 2 more inspiring because it *"was thoughtful and challenging"* a third participant who had selected both tasks 2 and 3 as appealing justified her choice by uttering that tasks 2 and 3 *"needed more focus and task 1 was old-fashioned"*. Concerning the second factor, i.e. task ease and convenience, one of the participants explained he had chosen task three as it included *"easy questions based on connection with environment"*. Regarding the other three factors, i.e. encouraging and exciting nature of the task, novelty, newness and being up-to-date, and authenticity and genuineness, the given responses were mostly short and telegraphic, and hence not quite appropriate to be mentioned in the form of extracts.

The second interview question was after pinpointing the part of the task (beginning, mid or end part) which sparked the highest amount of motivation from learners' perspective. To do so, the entire time interval for performing on the tasks was divided to five separate time intervals, as Table 14 indicates. In line with the obtained results, minute 3-4 was selected as the time interval in task performance that engendered the highest degree of motivation, followed by minutes 2-3 and then 4-5. The conclusion that can be made out of this finding is that the initial phase of task did not produce as much motivation and involvement as the final minutes of the task.

Table 14
The Frequencies and Percentages of Different Task Involvement
Time Intervals Perceived as More Inspiring

Min	Frequency	Percentage
0-1	2	5.5%
1-2	4	11%
2-3	8	21.5%
3-4	16	43%
4-5	7	19%

Findings Obtained for Research Question Two

The second research question of the study was after finding the role of gender in motivational fluctuations resulting from being exposed to different task types. In dealing with the second research question, the data obtained for each of the five minutes were analyzed separately. As the data violated the conditions for normality, to explore the second research question, the non-parametric equivalent of independent samples t-test (Mann Whitney U test) was used. Tables 15 and 16 indicate the results obtained for the effect of gender regarding task 1.

Table 15
Mean Ranks Obtained for the Role of Gender Regarding Task 1

	Gender	N	Mean Rank	Sum of Ranks
Minute (0-1)	Male	19	17.47	332.00
	Female	17	19.65	334.00
	Total	36		
Minute (1-2)	Male	19	16.97	322.50
	Female	17	20.21	343.50
	Total	36		
Minute (2-3)	Male	19	18.71	355.50
	Female	17	18.26	310.50
	Total	36		
Minute (3-4)	Male	19	17.29	328.50
	Female	17	19.85	337.50
	Total	36		
Minute (4-5)	Male	19	15.71	298.50
	Female	17	21.62	367.50
	Total	36		

As is seen in Table 15, the mean ranks obtained for males and females are 17.47 and 19.65 for minute 0-1, 16.97 and 20.21 for minute 1-2, 18.71 and 18.26 for minute 2-3, 17.29 and 19.85 for minute 3-4, and 15.71 and 21.62 for minute 4-5, respectively. Therefore, during all minutes except minute 2-3 females have reached higher mean ranks. However, to see whether these differences are statistically significant, Mann Whitney U test results in Table 16 were consulted.

Table 16
Mann Whitney U Test Results for the Role of Gender Regarding Task 1

	Minute (0-1)	Minute (1-2)	Minute (2-3)	Minute (3-4)	Minute (4-5)
Mann-Whitney U	142.000	132.500	157.500	138.500	108.500
Wilcoxon W	332.000	322.500	310.500	328.500	298.500
Z	-.633	-.940	-.129	-.747	-1.703
Asymp. Sig. (2-tailed)	.527	.347	.898	.455	.089
Exact Sig. [2*(1-tailed Sig.)]	.552[b]	.363[b]	.900[b]	.471[b]	.093[b]
a. Grouping Variable: Gender					
b. Not corrected for ties.					

As Table 16 shows, the obtained *p*-values are not statistically significant. Thus, the differences between the mean ranks of males and females during all minutes of learners' performance on task 1 are found to be non-significant. Then, to see the possible role of gender in motivational fluctuations during the performance on task 2, again Mann Whitney U test was run, the results of which are illustrated in Tables 17 and 18.

Table 17
Mean Ranks Obtained for the Role of Gender Regarding Task 2

	Gender	N	Mean Rank	Sum of Ranks
Minute (0-1)	Male	19	20.39	387.50
	Female	17	16.38	278.50
	Total	36		
Minute (1-2)	Male	19	19.76	375.50
	Female	17	17.09	290.50
	Total	36		
Minute (2-3)	Male	19	15.47	294.00
	Female	17	21.88	372.00
	Total	36		
Minute (3-4)	Male	19	18.08	343.50
	Female	17	18.97	322.50
	Total	36		
Minute (4-5)	Male	19	15.29	290.50
	Female	17	22.09	375.50
	Total	36		

As is seen in Table 17, the mean ranks obtained for males and females are 20.39 and 16.38 for minute 0-1, 19.76 and 17.09 for minute 1-2, 15.47 and 21.88 for minute 2-3, 18.08 and 18.97 for minute 3-4, and 15.29 and 22.09 for minute 4-5, respectively. Thus, while males had a better performance during first two minutes, females outperformed males during the later minutes. However, to see whether the differences are statistically significant, Mann Whitney U test results in Table 18 were checked.

Table 18

Mann Whitney U Test Results for the Role of Gender Regarding Task 2

	Minute (0-1)	Minute (1-2)	Minute (2-3)	Minute (3-4)	Minute (4-5)
Mann-Whitney U	125.500	137.500	104.000	153.500	100.500
Wilcoxon W	278.500	290.500	294.000	343.500	290.500
Z	-1.165	-.770	-1.863	-.260	-1.964
Asymp. Sig. (2-tailed)	.244	.442	.063	.795	.050
Exact Sig. [2*(1-tailed Sig.)]	.257[b]	.452[b]	.071[b]	.802[b]	.052[b]
a. Grouping Variable: Gender					
b. Not corrected for ties.					

As Table 18 shows, the obtained *p*-values are not statistically significant (Except for the last minute of learners' performance on task 2). Thus, the differences between the mean ranks of males and females during most minutes of learners' performance on task 2 are non-significant. Next, to see the possible role of gender in motivational fluctuations during the performance on task 3, again Mann Whitney U test was run, the results of which are illustrated in Tables 19 and 20.

Table 19

Mean Ranks Obtained for the Role of Gender Regarding Task 3

	Gender	N	Mean Rank	Sum of Ranks
Minute (0-1)	Male	19	20.26	385.00
	Female	17	16.53	281.00
	Total	36		
Minute (1-2)	Male	19	17.82	338.50
	Female	17	19.26	327.50
	Total	36		
Minute (2-3)	Male	19	19.03	361.50
	Female	17	17.91	304.50
	Total	36		
Minute (3-4)	Male	19	18.03	342.50
	Female	17	19.03	323.50
	Total	36		
Minute (4-5)	Male	19	16.29	309.50
	Female	17	20.97	356.50
	Total	36		

As is seen in Table 19, the mean ranks obtained for males and females are 20.26 and 16.53 for minute 0-1, 17.82 and 19.26 for minute 1-2, 19.03 and 17.91 for minute 2-3, 18.03 and 19.03 for minute 3-4, and 16.29 and 20.97 for minute 4-5, respectively. Based on the obtained mean ranks, it is found that while males had a better performance during minutes 0-1 and 2-3, females outperformed males during the other three minutes. However, to see whether the differences are statistically significant, Mann Whitney U test results in Table 20 were inspected.

Table 20

Mann Whitney U Test Results regarding the Role of Gender Regarding Task 3

	Minute (0-1)	Minute (1-2)	Minute (2-3)	Minute (3-4)	Minute (4-5)
Mann-Whitney U	128.000	148.500	151.500	152.500	119.500
Wilcoxon W	281.000	338.500	304.500	342.500	309.500
Z	-1.074	-.418	-.322	-.292	-1.384
Asymp. Sig. (2-tailed)	.283	.676	.747	.771	.166
Exact Sig. [2*(1-tailed Sig.)]	.300[b]	.684[b]	.754[b]	.778[b]	.186[b]
a. Grouping Variable: Gender					
b. Not corrected for ties.					

As Table 20 indicates, the obtained *p*-values are not statistically significant. Thus, the differences between the mean ranks of males and females during all minutes of learners' performance on task 3 are non-significant.

Discussion

The two fundamental objectives set in the current study were probing the role of task type in learners' motivational fluctuations and investigating the possible effect of gender in this regard. As the findings relevant to the first research question indicated, among the three tasks applied, task 2 (with a problem-solving orientation) and task 3 (a picture-prompted task) were characterized as the most motivating ones based on learners' motivational self-reports.

This finding partly corroborates the one obtained by Mohammadzadeh and Alavinia (in press), in that motivational fluctuations were similarly reported during task-supported language instruction. Nevertheless, a number of differences between their study and the current research are to be highlighted. First and foremost, the foci of the two studies were different, with the current study focusing on only task type as the main determining factor in motivational fluctuations, and their study focusing on motivational fluctuations within one single session of instruction as well as across consecutive sessions. Furthermore, the participants in their study were only females, whereas the ones used in the current study were from both genders. Additionally, the duration of involvement with the tasks was longer in their study compared to the current investigation. However, as regards instrumentation, both studies made use of Motometer and interviews for data collection.

The current finding also resonates with that of Pawlak (2012) who reported motivational fluctuations in the process of language learning. Though Pawlak was also interested in detecting the minute-to-minute fluctuations in learners' motivation, unlike the current investigation, his study wasn't concerned with task performance. Another distinction between this study and his related to the instruments employed for data collection. While the present study only relied on data gathered through Motometer and interview, Pawlak made use of a number of different data collection tools, i.e. questionnaire, interview, motivational grid, and evaluation sheet. He also involved the teachers by giving them a questionnaire.

Similar results were reported in a follow-up study by Pawlak et al. (2014), and in their probe into dynamic nature of motivation. Akin to Pawlak (2012), they also opted for triangulation via the application of motivational grid, evaluation sheet, questionnaire and interview. Their finding is hence in line with the current study owing to the fact that they also underscored temporal fluctuations occurring in learners' motivational levels. However, their focus was again not on task performance, and the duration of their study was for two weeks.

The findings for the first research question are also in keeping with those of MacIntyre and Serroul's (2015) who reported similar motivational fluctuations in task performance, though the instruments utilized by them, as stated earlier, were not the same as the ones employed in the current study. In much the same way, an equally large extent of variability in learning motivation was reported in Yaghoubinejad et al.'s (2016) study.

A further finding gleaned from the current research was the direct influence of task features on the degree of interest generated by the task. This result is in compliance with the one obtained by Mohammadzadeh and Alavinia (in press) as they also underscored the crucial role played by task features in motivating learners to perform on the task.

Another issue that was explored in the study concerned the task features resulting in higher levels of motivation among learners. Among the main factors referred to by participants as the key motivators were the challenging nature of task, ease of task and its convenience. Based on the findings of the present study, the degree of challenge created by the task was reported to be a key determiner of its appeal for learners.

As stated previously, the second task utilized in the study which had a problem-solving orientation engendered higher levels of motivation among learners. The reason underlying this is thought to be the potential of task challenge as a fundamental feature of a task in producing increased involvement for learners. In this regard, Kim et al.'s (2017) contention might look relevant as they regard active participation in task performance as a positive aspect of learning through tasks.

This finding, however, seems to be in contrast to what Kormos and Préfontaine (2017) reported in their study, as they claimed tasks taxing in terms of conceptualization demands, and hence challenging by nature, are likely to provoke negative affective feelings. The logical conclusion that might be made out of these findings is that challenge is an essential feature for the task to keep the learners motivated, but the extent of challenge created by the task is to be kept within control. In other words, in line with Kormos and Préfontaine's (2017) finding, excessive challenge and conceptual demand imposed on learners by the task may lead to their dissuasion and demotivation.

Moreover, as regards task duration, most learners had experienced comparatively higher amounts of motivation during the final moments of the task, rather than the initial phase. Though the researchers couldn't encounter direct evidence for substantiating the effect of task phase on motivational level, it ap-

pears that reaching the final moments of the task which both moves learners toward a sort of climax and gives them a sense of task completion can be the chief reason underpinning their augmented motivational levels.

Ultimately, concerning the second research question probing the role of gender in motivational fluctuations, no significant difference was found between males and females. This lack of difference between males and females in task performance might gain support from studies like Azkarai (2015) who worked on gender-based differences in learners' task-based performance and interaction. Though the foci of two studies were not exactly identical with the current study focusing on motivational fluctuations during task performance and hers dealing with task-based interaction, what the conclusions of both studies boil down to is insignificant gender differences in the process of task performance.

This finding, however, runs contrary to the finding obtained by Chung and Chang (2017) who reported significant differences in the state of learners' motivation induced by gender. Nevertheless, like their study which pointed to higher levels of motivation among female learners, the current study also found that females enjoyed a comparatively better status as regards motivation, but the observed differences between males and females in the present study were insignificant.

The current finding also corroborates those of Iwaniec (2019) who explored language learning motivation in light of gender. As she contended, females surpassed males in terms of learning motivation as regards measures of motivation like international orientation, ideal L2 self and self-regulation. Nonetheless, concerning other components of motivation including instrumentality, self-efficacy beliefs, English self-concept and intrinsic motivation, no significant difference was encountered between males and females. It must be noted that research findings concerning gender role in motivation and task performance are still inconclusive and more research is required to come up with more compelling results.

Conclusion, Implications and Suggestions for Further Research

The researchers in the current study strove to pinpoint the would-be role of task type in motivational fluctuations. Furthermore, the possible role gender might play in tampering with these motivational changes was also explored. In accordance with the obtained results task 2 which was a problem-solving task was demarcated as the most motivating and task 3 (a picture-prompted task) was demonstrated to be the second most inspiring task. In addition, gender was not found to be of significance as regards motivational fluctuations. In line with the findings of the current study, further evidence is gathered for the importance of task type in determining the level of learners' motivation. As learners' motivational self-reports through Motometers revealed, higher levels of

motivation were experienced by learners while dealing with more challenging tasks like problem-solving, as well as more intriguing ones such as picture-prompted tasks. This finding is to be taken into account by materials developers, syllabus designers and all other educational policy makers as a useful tool to bring about increased levels of learner motivation.

Task appeal might be regarded as a cornerstone of flow theory (Csikszentmihalyi, 1990) and the initial step for sparking motivation in the activity. Thus, to make learners more interested in what they are performing in the class, task challenge and appeal are to be taken into consideration by task designers. However, as probe into motivational fluctuations is still infrequent and inconclusive, a lot more research is required to find the role of different influential factors bringing about motivational changes in learners.

Future researchers may help shed more light on the body of research concerning motivational fluctuations and the key factors underpinning it. Among the major recommendations that can be offered for further investigation lie the use of a variety of other task types, say jigsaw tasks, consensus tasks, and other types of pictorial tasks (e.g., spot-the-difference task), to corroborate the findings thus gained, making use of a larger sample to augment generalizability, and replicating the current study with other groups of learners from other levels of proficiency. After all, research within the realm of motivation, particularly with the new outlook regarding it as a permanently dynamic, changeable notion, still seems to be in its infancy and hence delving into motivational fluctuations looks like sailing within the uncharted waters. Thus, coming up with more robust and conclusive results is in need of further research and investigation.

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The Impact of Teaching Cultural Materials on Reading Motivation and Attitude of Iranian Upper-Intermediate EFL Learners

Research Article

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Abstract

This study investigated the effect of teaching cultural materials on reading motivation and reading attitude across two genders. To fulfill this objective, 150 upper-intermediate male (n = 75) and female (n = 75) EFL learners were selected and randomly divided into three equal groups. Then, a reading motivation pretest was carried out to check the partici-

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pants' reading motivation at the beginning of the course. As the treat-ment, some reading passages related to American and English cultures (for group A), Persian culture (for group B), and culture free-materials (for group C) were taught. After the treatment, a posttest of reading moti-vation and a reading attitude questionnaire were executed. The outcomes indicated that teaching materials with cultural content in them promoted the Iranian EFL learners' reading motivation as checked by the Motiva-tion for Reading Questionnaire (MRQ) (Wigfield & Guthrie, 1997). More-over, as measured by a 25-item attitude questionnaire adapted from Liu's (2015) scale, it was discovered that students had a positive attitude to-ward using such cultural materials in their reading. Lastly, the results demonstrated that female participants performed better than the male ones on reading motivation posttest. In light of the findings, a number of conclusions are drawn and several implications are put forward.

Introduction

In EFL learners' target language comprehension, cultural knowledge plays a fundamental role (Pashayi & Mahmoudi, 2017). Cultural knowledge is regarded as an instrument for reconstructing the meaning of a text by referring to the relevant cultural scripts (Oller, 1995). Shirzadi (2015) defined cultural knowledge as one piece of content schema which is needed to understand a text. In addition, Hayati (2009) regarded students' cultural knowledge as a cor-nerstone of learning a language. He stated that students can learn a language professionally when they obtain adequate cultural mastery over the target lan-guage. With regard to the value of cultural awareness, Tsou (2005) stated that when cultural directions are combined with language instruction, students' language proficiency can progress, and they become increasingly enthusiastic in the target language.

According to Ruthemsley (2011), being equipped with cultural knowledge is beneficial to readers in recasting the text into a more culturally and personally familiar written language. Different researchers (e.g., Dehghan & Sadighi, 2011; Rashidi & Soureshjani, 2011) stated that the influence of readers' knowledge about culture on their comprehension of reading texts is significant. Moreover, teaching culture and having cultural knowledge are so important that Jiang (2000) asserted that teaching a target language most probably fails without teaching the culture related to that language. Without learning cultural traits of a country, language learners may be presented with an insipid version of a lan-guage (Jamasbi & Bagher, 2017). Concerning the significant impact of cultural knowledge on English language learning, especially on reading comprehension, this study aims to investigate the impacts of cultural knowledge on Iranian EFL learners' reading comprehension.

Reading comprehension is tied to cultural knowledge. As Nachmani (2015) stated, reading comprehension performance shows strong ties with cultural

bias. Grabe and Stoller (2002) consider reading as the most critical academic language skill and they take reading as "the ability to draw meaning from the printed page and interpret this information appropriately" (p. 9). Lin (2002) stressed the significance of background and cultural knowledge in reading comprehension, proclaiming that cultural awareness and prior knowledge both have a remarkable effect on reading comprehension. Additionally, students' familiarity with their culture affects their reading improvement and their degree of comprehension. If readers lack adequate vocabulary and prior knowledge of the reading content, these deficits can hamper their reading skill (Liu, 2015).

Additionally, it is impossible to properly delineate the processes of understanding texts without enjoying a deep grasp of the cognitive processes through which knowledge is portrayed, processed, and utilized in comprehension. As one attempt to do so, Bartlett (1932) who followed Gestalt psychology first introduced the concept of schema in order to pin down the reconfiguration process of information in stories and events in memory to facilitate future recall. Bartlett maintained that comprehension and anamnesis are apt to occur in the realm of previous experience drawing on pertinent information in memory. Later on, he put forth the word "schema" as a concept embodying the idea how such previous experience is organized.

The field of cognitive psychology has enjoyed groundbreaking and interesting advances thanks to schema theory. Some scholars have taken advantage of the theory in order to add clarification and further description to some cognitive processes including problem-solving, reasoning, remembering and inferencing. The theory has catalyzed experimental research and resulted in numerous studies in learning, comprehension, and memory. (e.g., Adams & Collins, 1979; An, 2013; Anderson, 2008; Nassaji, 2002).

Schema theory follows some major principles, one being that the worthwhile essence of the reading process and the vital role of the reader and the interplay between the text and the reader's prior knowledge receive priority. Such state of affairs remarkably influenced research and instruction in second language (L2) comprehension. This has brought about a plethora of illuminating studies concerning the assessment and prominence of conceptual and prior knowledge in comprehension and instruction in L2 (e.g., Carrell & Eisterhold, 1983; Liu, 2015; Ruthemsley, 2011).

Regarding the importance and nature of prior knowledge, Vygotsky (1986) commented that the inseparable connection between language and culture starts to have an impact in advance of any developments in learning and cognition. Vygotsky's socio-cultural theory considers language experiences and cultural backgrounds knowledge as important mediational tools in the development of higher mental processes of learners (Vygotsky, 1986). Vygotsky claimed that the more prior knowledge learners have to learn a language, the greater their cognitive skills and successful language learning. He further asserted that there are specific tools to each culture which are necessary to interact socially.

More importantly, familiarity with the target culture can increase the reading motivation of EFL learners. Hairul et al. (2012) maintained that reading motivation involves a high level of motivation that students require in order to draw their either positive or negative attitudes on reading. Pachtman and Wilson (2006) argued that it is necessary to motivate learners to read by giving them the chance to go for their favorite texts. Reading motivation is strongly related to reading comprehension and improvement. (Choudhury, 2014). Additionally, Hairul et al. (2012) asserted that reading comprehension is significantly influenced by reading motivation. Finally, they maintained that, in different situations, all dimensions of motivation and reading comprehension tactics are under the influence of reading motivation. Students with a strong motivation to read spend a lot of time on reading and demonstrate increased potentiality over time (Marinak & Gambrell, 2010; Schaffner et al., 2013). On the other hand, weak readers most often show little motivation to read, so, increasing reading motivation may be useful in supporting weak readers get proficient (Morgan & Fuchs, 2007).

Males and females are different in learning English as forging language. Gender is the factor which can affect language learning. According to Lackoff (1975), readers' gender affects text comprehension. Also, Zeynali (2012) stated that learners' academic fondness, requirement, and success are affected by gender. Gender differences may be witnessed when one wonders how intrinsic motivation and reading comprehension are related. For instance, Logan et al. (2011) discovered that boys' motivation for intrinsic reading was remarkably commensurate with their level of reading ability, while girls did not show this significant relationship. Several studies have been done with a focus on gender as the main variable and researchers are interested in knowing about the differences between males and females in their language practices. Saidi (2012) believes that "if males and females learn differently, this may form an obstacle for the teachers in mixed classes and they must consider this when conducting tests" (p. 232).

The other factor that can affect learning English is attitude. Reading attitude is described as "a collection of acquired feelings about reading that consistently predispose a person to involve or eschew reading" (Conradi et al.,2014, p. 154). Likewise, reading attitude was defined by McKenna et al. (2012) as an acquired inclination for responding in a pleasant or an unpleasant way concerning reading aspects. Showing a positive attitude towards reading is crucially essential in an effective learning process. Therefore, we as teachers should aim to teach in a way that make students involved and enthusiastic in language learning and pave the way for them in order to have positive attitudes toward language learning. Currently, it seems that the cultural aspect of language instruction has been ignored and this adverse situation should be remedied. The modification not only helps students understand English reading texts, but also has a crucial impact on learner motivation.

Review of Literature

Schema has been defined by Bartlett (1932) as a memory reservoir of perceived sensory knowledge. Bartlett claimed that schemata are culturally-controlled. When the number of schemata rises, it becomes possible to retrieve an ever-increasing volume of knowledge at a minimum of time; adjusting new knowledge to a proper schema enables one to recall new and significant opinions (Choudhury, 2014). Consistency with the current schema can lead to comprehension, on the other hand, inconsistency can cause problems on the course of reading comprehension. Schemata can inhibit reading comprehension and memory; inconsistent details with individuals' schema are deleted, or changed into consistent schemata in the memory. On the other side, schemata may often serve a supporting function if their information is compatible with the reading content; in this situation, cognitive analysis takes place easily without significant impediments (Anderson, 2008; Ruthemsley, 2011).

Based on Schema theory, reading process involves combining prior background knowledge with new information gained by readers from texts. The fact that readers are different in regard to the type and amount of background knowledge they hold signals that this process is culture-specific. Carrell and Eisterhold (1983) formally acknowledged the prominence of schema theory and hence prior knowledge in language comprehension and confounded that spoken and written language in no way conveys any messages in isolation. Carrell and Eisterhold were on the belief that, at best, texts equip readers with instructions about retrieving and constructing meaning based on the knowledge they have gained a priori. The vital role of prior knowledge in reading skill was brought to the fore by Carrell and Eisterhold and Anderson (2008) who posited that the success in comprehension is determined by the capability a reader has in connecting the information that a text provides with their previously acquired background knowledge.

Moreover, based on schema theory, one's comprehension depends on the success in activating background knowledge when creating meaning. The prominent impact of previous knowledge in comprehension is already vindicated in a couple of researches in literature on L2 reading (Askarzadeh Torghabeh & Nezhadmasoum, 2015; Eidswick, 2010; Rashidi & Soureshjani, 2011; Swaffar, 1988). In these studies, schemata are categorized as two types: 1) content schemata which are the background knowledge that one reader has about conceptual content of the texts and 2) formal schemata which are introduced as the prior knowledge that one reader has about rhetorical structure of the text (Alptekin, 2006). Based on the findings of these studies, satisfactory reading performance is brought about by the capacities of L2 readers in properly using schema and engaging in interactive processing. What this concentration on higher level reading skills, sometimes at the expense of lower-level skills, yields is acknowledging the significant role that cultural knowledge plays in a reader's experience in constructing meaning, mainly when it comes to the content and formal schemata (Eskey, 1988). What schema-theoretic researches in L2 reading suggest is that more interaction between content and/or formal data of a

text and the reader's culture-specific prior information results in high quality understanding. On the other hand, more compatibility between cultural background knowledge and different types of schemata facilitates a reader's successful retrieval and construction of meaning (Alptekin, 2006, Liu, 2015).

When a narrative text shows coherences with a well-organized story line, therefore the importance of the story schema in textual understanding is boosted, for readers are presented with "episodes of meaningful experience containing actual material people, incidents, locations, and socio-cultural interactions in which [they] can recognize and explore mutual ground" (Oller, 1995, p. 299). This interplay happens, Oller claimed, even when specified words in the main text are converted into more recognizable words to the readers (e.g., Jack to Ali) as "a term known as a male referent creates assumptions that would be missing if the term is not recognized as having any gender prejudice" (p. 297). However, it is always also a struggle for L2 learners to recognize and align themselves with the characters and contents of short stories from the target language culture. Approximately all these texts take into account the cultural expectations of the native speakers of that language. What is required for a real understanding to occur is certain type of cultural belonging which, as Fish (1980) pointed out, results in the progression of 'interpretative cultures', through which readers construe the meaning of a text by effectively 'reconstructing' it in their memories – based on common beliefs, traditions, and expectations.

Furthermore, Singhal (1998) believed the L2 readers who do not have background information on an English text or other languages are restricted in understanding the text content. Textual structure also differs from one language to another. In the area of linguistic language schema, Singhal (1998) notes that L1 linguistic features may affect L2 learners' exegesis on the English text.

Another important factor, according to Wigfield and Guthrie (1997), which is absolutely essential for learners in both a classroom context and an extracurricular environment, is reading motivation. Reading motivation is necessary for the learners since they have to be motivated in the English language learning to develop their reading comprehension and understand the texts successfully. The relationship between motivation and reading comprehension has been elaborated in various theoretical frameworks; self-determination and expectancy-value theories are among which were highly emphasized (Conradi et al. 2014; Deci & Ryan, 2012). The theory of self-determination explains motivation by emphasizing the significance of three fundamental psychological factors: competence, relatedness, and autonomy. Competence alludes to a person's requirement to feel proficient at a particular occupation, while relatedness demonstrates a person's innate requirement to be involved with others socially. Autonomy alludes to a person's valence to be a causal agent of one's own life. Expectancy-value is another theoretical method frequently utilized to decide the relationship between reading motivation and comprehension (Wigfield & Eccles, 2000). This viewpoint proposes that a person's confidence in his/her own abilities to accomplish a task and the importance he or she attributes to

that task affect motivation remarkably. Therefore, readers who prize reading and who consider themselves as proficient readers have a tendency to demonstrate upper levels of intrinsic motivation and outperform on reading comprehension tasks than those who do not (Marinak & Gambrell, 2010).

In this research, learners' reading motivation and reading attitude toward target language are investigated. Indeed, having cultural awareness can aid the learners to comprehend the content more successfully. This is why, when the culture of reading texts is unfamiliar for the readers, it is very difficult for them to comprehend these texts. Therefore, this study tends to examine the influences of teaching cultural materials on reading motivation and reading attitude among Iranian upper-intermediate male and female EFL learners. To this purpose, six research questions were proposed:

RQ 1. Does familiarity with the target cultural materials (British and American) affect Iranian EFL learners' reading motivation?

RQ 2. Does familiarity with Persian cultural materials (source culture) affect Iranian EFL learners' reading motivation?

RQ 3. Do culture-free materials have any impact on Iranian EFL learners' reading motivation?

RQ 4. Is there any significant difference between and within all groups' foreign language reading motivation after three-months exposure to various cultural materials? If so, which group has higher motivation towards reading in English?

RQ 5. Is there any significant difference between Iranian male and female EFL learners' reading motivation through teaching cultural materials?

RQ 6. What are Iranian upper-intermediate EFL learners' attitudes toward using various cultural materials in teaching reading comprehension?

Methodology
Participants

In this study 150 Iranian male and female learners between the ages of 17 to 20 years old participated. They were selected among 250 students from five private Language Institutes in Ahvaz, Iran. All of them were at upper-intermediate level of proficiency in English based on the outcomes of the Oxford Quick Placement Test (OQPT). In order to select the participants, non-random convenience sampling was utilized; that is, the students were accepted according to a criterion - their scores on the OQPT. All the participants were Iranian EFL learners from a Persian background. Each gender was randomly divided into three equal groups: Group A (Target Culture = TC), Group B (Source Culture = SC), and Group C (Culture-Free = CF) or Control Group, each comprising 25 participants. Table 1 clearly shows the information regarding the participants:

Table 1
Information Regarding the Participants in the Study

Gender	Groups	Number
	Group A (Target Culture = TC)	25
	Group B (Source Culture = SC)	25
Male	Group C (Culture-Free = CF) (Control Group)	25
	Group A (Target Culture = TC)	25
Female	Group B (Source Culture = SC)	25
	Group C (Culture-Free = CF) (Control Group)	25
Total		150

Instruments and Materials

The instruments utilized in this study are as follows:

Oxford Quick Placement Test (OQPT). In order to achieve participant homo-geneity in the study, Oxford Quick Placement Test (OQPT) was applied. It was supposed to help the researchers to have a greater comprehension of what level of proficiency their participants were at. This test included 60 multiple-choice items and according to Allen (2004), the learners whose scores are 0-10 are beginners, 11-17 are breakthrough, 18-29 are elementary, 30-40 are inter-mediate, 40-47 are upper-intermediate and 48-60 are advanced level (Allen, 2004).

The Motivation for Reading Questionnaire (MRQ). A modified sample of Motivation for Reading Questionnaire (MRQ) was taken advantage of in this study. MRQ was developed in 1997 in University of Maryland by Wigfield and Guthrie (1997). They used the MRQ during the fulfillment of Concept-Oriented Reading instruction on a group of learners in one mid-Atlantic state school. Fac-tor analyses carried out by Wigfield and Guthrie confirmed the essence of con-struct validity that supports eleven factors in this MRQ for a total of 53-items. Maximum segments of reading motivation were affirmatively relevant with low-to high levels. They also reported that their questionnaire varied from .43 to .81 in terms of reliability. Wigfield and Guthrie (1997) suggested eleven ele-ments (Table 2) as the basis for the questionnaire in their final version of the original MRQ with fifty-three items.

Table 2
The Elements of MRQ

Elements of questionnaire	The number of items
Reading Efficacy	3
Challenge	5
Curiosity	5
Reading Involvement	6
Importance	2
Recognition	5
Grades	4
Social	7
Competition	6
Compliance	6
Reading Work Avoidance	4

In this research, 30 items of the whole 53 items in the questionnaire were chosen because only seven aspects of total 11 aspects of reading motivation were considered to measure. They were: reading efficacy, reading challenge, reading curiosity, reading involvement, importance of reading, recognition for reading, and reading for grades. MRQ was a five-point Likert scale questionnaire comprised five choices: 1 for 'I strongly disagree', 2 for 'I disagree', 3 for 'I don't know', 4 for 'I agree', and 5 for 'I strongly agree'. The participants answered the MRQ twice. They did so both before and after the treatment. It should be mentioned that the validity of MRQ was corroborated by 5 English experts and its reliability was checked through Cronbach's Alpha test (r = .79).

Materials

The materials were chosen from Internet reliable websites (such as *bbc.com* and *cnn.com*) and other authentic resources such as ACTIVE Skills for Reading series (Anderson, 2008)*,* published by Heinle ELT, *Top Notch, level 1 A* by Saslow and Ascher (2011), and *Select Reading Series* (Lee & Gundersen, 2014).

Reading Attitude Questionnaire. Reading attitude questionnaire was the last instrument used in the present study. It included twenty-five questions which was an adapted form of Liu's (2015) questionnaire. The researchers designed the twenty-five questions in the questionnaire to help determine if students have positive or negative attitudes toward teaching cultural materials in reading comprehension. Using a Likert scale, the questionnaire gathered students' feedbacks and showed the number of agreements and disagreements in the subjects' replies. The questionnaire comprised questions regarding two factors: (1) cultural materials, and (2) reading comprehension. These two factors were regarded from the viewpoints provided in prior studies carried out by Bensoussan (1998) and Lin (2002). The learners were permitted to select from five choices: "strongly disagree," "disagree," "neutral," "agree," and "strongly agree," and each response received from one point to five points. It should be noted that the questionnaire mostly asked students to mention if they make any connections between the cultural materials in the classroom and their abilities in answering related reading comprehension questions. It was given to the students at the end of the study. Just the learners in groups A, and B received this questionnaire and filled it out.

Regarding the questionnaire's validity and reliability, since the original questionnaire received some modifications to meet the aim of this study, the researchers made sure about the validity of the instrument. The modified questionnaire was reviewed by five experts who were English teachers and had familiarity with ideas in second language learning and cultural materials. To achieve a general agreement regarding the content validity of the questionnaire, it was necessary to delete some items and rectify the wording of some items. Twenty-five items were included in the final version. This stage was crucial in obtaining a comprehensible and relevant questionnaire regarding face

and content validity. Moreover, reliability was calculated after using Cronbach's Alpha test (r = .89).

Data Collection Procedure

In the first step, the OQPT was carried out to check the participants' homogeneity with regard to English language proficiency. One hundred fifty (75 males and 75 females) learners out of 250 were opted to be the main participants of the current study. The next step was dividing the selected participants of each gender into three equal groups, group A (Target Culture = TC), group B (Source Culture = SC), and group C (Culture-Free = CF) or control group. All groups received a pretest (MRQ). After that, the treatment was carried out in each group. The participants in each group practiced reading comprehension passages imbued with contents from a particular culture. During the treatment period which was about 25 sessions, the researchers provided reading passages related to American and British culture (for group A), Persian culture (for group B), and finally culture-free passages (for group C). The passages were mostly about particular cultural subjects, for instance, *Mosque, Cathedral, Christmas festival, Nowruz Festival, Thanksgiving day, Boxing Day, Guy Fawkes Night, Chaharshanbe Suri, Sofreye Haft Sin, Valentine's Day, Poppy Day or Remembrance Day, Ostrich Racing Sizdah Be-dar,* and so on. Students were expected to do careful reading, and then the teacher asked them many questions including synonyms and antonyms, fill in the blanks, tell-what-you-understand, etc. Before teaching the selected reading texts, the researcher catered pre-reading cultural warm-up activities for the students. For instance, if the given reading text was about Christmas, the researcher activated his students' mind by providing some background knowledge about the customs and the beliefs related to Christmas. Besides, the students were allowed to think and to talk about the given text; they expressed their ideas about the gist of the reading text. Furthermore, some exercises including question and answer (Q&A) was practiced in the classroom. Q and A refers to some questions related to the text asked by the researchers and answered by the students and wanting them to share their answers. The reading passages were collected from reliable websites (such as *bbc.com* and *cnn.com*), providing learners various types of English texts along with a variety of follow-up queries to test the users' comprehension and other authentic sources such as ACTIVE Skills for Reading series (Anderson 2008), published by Heinle ELT, *Top Notch, level 1 A* by Saslow and Ascher (2011), and *Select Reading Series* (Lee & Gundersen, 2014). It should be noted that the text difficulty was determined by using the scale of Gunning Fog Tests (Gunning, 1952) after the retrieval of the texts from the site.

Finally, after about 25 sessions, the students answered the MR questionnaire. In addition, to seek students' attitudes regarding the inclusion of cultural materials, qualitative data were also obtained from a reading attitude questionnaire comprising twenty-five items.

Results

In order to decide whether the scores were normally distributed or not, Kolmogorov-Smirnov test was conducted. *Sig.* values showed a value higher than .05, which reveals that the distribution of scores for the pretest and posttest received from the three groups was normal.

As the first three research questions sought to figure out if teaching target cultural materials (English and American), Persian cultural materials (source culture), and culture free materials had any significant effects on Iranian EFL learners' reading motivation, the MRQ pretest and posttest scores of the learners in the three groups were compared through running a paired-samples *t*-test:

Table 3
Descriptive Statistics for Comparing Pretest and Posttest Scores of the TCG, SCG, and CFG

		Mean	N	Std. Deviation	Std. Mean	Error
Pair 1	TCG Posttest	78.82	50	14.26	2.01	
	TCG Pretest	33.12	50	1.81	.25	
Pair 2	SCG Posttest	70.18	50	15.34	2.16	
	SCG Pretest	33.70	50	1.83	.25	
Pair 3	CFG Posttest	33.82	50	1.74	.24	
	CFG Pretest	33.28	50	1.96	.27	

As Table 3 shows, the TCG, SCG, and CFG students got the mean scores of 33.12, 33.70, and 33.28 on the MRQ pretest and 78.82, 70.18, and 33.82 on the MRQ posttest, respectively. To check whether the difference between the pretest and posttest scores of the three groups was statistically significant or not, the researchers examined the paired-samples *t*-test table (Table 4):

Table 4
Results of the Paired-Samples t-Test Comparing Pretest and Posttest Scores of the TCG, SCG, and CFG

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
TCG POST – TCG PRE	45.70	14.08	1.99	41.69	49.70	22.94	49	.00
SCG POST – SCG PRE	36.48	15.87	2.24	31.96	40.99	16.25	49	.00
CFG POST – CFG PRE	.54	2.10	.29	-.05	1.13	1.81	49	.07

Table 4 demonstrates that there was a statistically significant difference between the pretest (*M* = 33.12, *SD* = 1.81) and posttest (*M* = 78.82, *SD* = 14.26) scores of the TCG learners since the *p* value under the *Sig,* (2-tailed) column was less than .05 (i.e. .00 < .05). Moreover, since the *p* value under the *Sig.* (2-tailed) column for the SCG group in Table 2 was smaller than .05 (.00 < .05), it

could be understood that the difference between the MRQ pretest (M = 33.70) and posttest (M = 70.18) of the SCG learners was statistically significant. These indicate that the treatment, i.e. teaching target cultural materials (English and American) and Persian cultural materials (Source Culture), was beneficial when it came to the reading motivation of the Iranian EFL learners. Lastly, as Table 4 demonstrated, there was not a statistically significant difference in the pretest (M = 33.28) and posttest (M = 33.82) of CFG since the p value was larger than 0.05 (p > .05). Therefore, it could be deduced that culture-free materials did not affect the reading motivation of upper-intermediate Iranian EFL learners.

The fourth research question of this study aimed to see if there is any sig-nificant difference between and within all groups' foreign language reading motivation after three-months exposure to various cultural materials. To attain this objective, one-way ANCOVA was chosen to be carried out:

Table 5
Descriptive Statistics for Comparing the Posttest Scores of the TCG, SCG, and CFG Learners

Groups	Mean	Std. Deviation	N
TCG	78.82	14.26	50
SCG	70.18	15.34	50
CFG	33.82	1.74	50
Total	60.94	22.98	150

The mean scores of the TCG (M = 78.82), SCG (M = 70.18), and CFG (M = 33.82) were seen to be varied from one another on the MRQ posttest. To examine whether the differences among these mean scores were of statistical signifi-cance or not, it is necessary to check the p value under the *Sig.* column in the one-way ANCOVA table below (Table 6).

Table 6
Results of One-Way ANCOVA for Comparing the Posttest Scores of TCG, SCG, and CFG Learners

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	57034.33	3	19011.445	128.206	.000	.725
Intercept	1924.25	1	1924.25	12.97	.00	.08
Pretest	6.01	1	6.01	.04	.84	.00
Groups	57034.29	2	28517.14	192.30	.00	.72
Error	21650.12	146	148.28			
Total	635737.00	150				
Corrected Total	78684.46	149				

The p value under the *Sig.* column in Table 6 was lower than .05 (.00 < .05), revealing that the difference between the TCG (M = 78.82), SCG (M = 70.18), and CFG (M = 33.82) on the MRQ posttest reached statistical significance. This means that the three groups significantly varied in terms of reading motivation

after the treatment. Pair-wise comparisons of the groups (in Table 7) reveals the two groups which showed significant difference on the MRQ posttest.

It is also worth noting that the effect size value, shown under the Partial Eta Squared column in front of Groups, equaled .72, which means that the treatment (i.e., cultural materials) accounted for 72% of the difference between the MRQ posttest of the three groups.

Table 7
Pair-wise Comparisons for TCG, SCG, and CFG Learners' Mean Scores on the Posttest

(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.[b]	95% Confidence Interval for Difference[b]	
					Lower Bound	Upper Bound
CFG	TCG	-44.98	2.43	.00	-50.88	-39.08
	SCG	-36.40	2.44	.00	-42.32	-30.48
SCG	TCG	-8.57	2.45	.00	-14.52	-2.63
	CFG	36.40	2.44	.00	30.48	42.32
TCG	SCG	8.57	2.45	.00	2.63	14.52
	CFG	44.98	2.43	.00	39.08	50.88

Based on the data demonstrated in table 7, it could be observed that the difference between CFG (M = 33.82) and TCG (M = 78.82) was statistically significant since the *Sig.* value related to this comparison (p = .00) was less than .05. This means that teaching target cultural materials (English and American) could cause a remarkable impact on the reading motivation.

Additionally, CFG learners' mean score (M = 33.82) was significantly smaller than that of SCG learners (M = 70.18) as the p value was .00, which is less than 0.05. Consequently, it could be deduced that teaching Persian cultural materials (source culture) also leaves a significant effect on reading motivation.

Finally, the comparison of TCG (M = 78.82) and SCG (M = 7018) revealed that teaching target cultural materials (English and American) was more effective than Persian cultural materials (source culture) as the reading motivation of Iranian upper-intermediate EFL learners was concerned. This result ensued because the p value for the comparison of these two groups (i.e. .00) was lower than the significance level (.05.).

In an endeavor to respond the fifth question of this study, two-way ANCOVA was run.

Table 8
Descriptive Statistics for Comparing the Posttest Scores of the Male and Female Learners in the TCG, SCG, and CFG

Groups	Gender	Mean	Std. Deviation	N
TCG	Male	70.24	15.47	25
	Female	87.40	4.74	25
	Total	78.82	14.26	50

SCG	Male	66.84	18.14	25
	Female	73.52	11.32	25
	Total	70.18	15.34	50
CFG	Male	34.44	1.35	25
	Female	33.20	1.89	25
	Total	33.82	1.74	50
Total	Male	57.17	21.18	75
	Female	64.70	24.20	75
	Total	60.94	22.98	150

As Table 8 shows, the total difference between the male (M = 57.17) and female (M = 64.70) learners seems to indicate a large difference. However, to get sure whether the difference between the gender groups in the study was statistically significant or not, the researchers needed to examine the p value in front of Gender under the *Sig.* column in the two-way ANCOVA table:

Table 9
Results of Two-Way ANCOVA for Comparing the Posttest Scores of the Male and Female Learners in the TCG, SCG, and CFG

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	61286.14	6	10214.35	83.95	.00	.779
Intercept	1660.02	1	1660.02	13.64	.00	.087
Pretest	.00	1	.00	.00	.99	.000
Groups	57023.02	2	28511.51	234.34	.00	.766
Gender	2125.99	1	2125.99	17.47	.00	.109
Groups * Gender	2128.73	2	1064.36	8.74	.00	.109
Error	17398.31	14	121.66			
Total	635737.00	15				
Corrected Total	78684.46	14				

Table 9 indicates that the p value in front of Gender was found to be less than 0.05 (.00 < .05), which shows that the differences between the male and female EFL learners has achieved statistical significance. Moreover, there was a statistically significant two-way interaction effect for groups/treatment and gender on the posttest, whilst controlling for pretest, F (2, 14) = 8.74, p =.00, partial η^2 = .109.

The last question of the study tried to unearth the attitudes of the TCG and SCG learners towards using various cultural materials they received in teaching reading comprehension. The results taken from the questionnaire are present-ed in Appendix A.

In the questionnaire, all the mean scores of the questionnaire items were well above 3.00 (which is the average value of the options where "strongly agree" receives 5.00 and "strongly disagree" receives 1.00). This indicates that the both TCG and SCG learners agreed with all the questionnaire items, which were all positive comments about using cultural materials in teaching reading comprehension. The highest mean scores out there belonged to items 4 and 6

through which the learners expressed that (a) Teaching cultural materials may cause better reading comprehension, and (b) Familiarity with content and having enough cultural background knowledge are the major factors that make reading comprehension better. To check whether the degree of this agreement was statistically significant or not, a one-sample *t*-test was run.

Table 10
Descriptive Statistics for TCG and SCG Learners' Attitude Scores

	N	Mean	Std. Deviation	Std. Error Mean
TCG Attitude	23	4.39	.40	.08
SCG Attitude	23	4.35	.40	.08

That the overall mean score of the questionnaire was well above 3.00, indicating that both TCG and SCG learners had positive attitudes towards the treatment they received. To see if the positive attitudes reached statistical significance, one-sample *t*-test table had to be checked:

Table 11
One-Sample t-Test Results for the TCG and SCG Learners' Attitude Scores

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
TCG Attitude	52.23	22	.00	4.39	4.21	4.56
SCG Attitude	51.55	22	.00	4.35	4.17	4.52

It is obviously seen in Table 11 that the both TCG and SCG learners' attitude was significantly positive since the *p* value was smaller than 0.05 ($p < .05$). Both TCG and SCG, thus, did welcome using cultural materials in teaching reading comprehension for writing.

Discussion

Generally speaking, this study inspected the effectiveness of teaching cultural materials on Iranian EFL learners' reading motivation and reading attitude. The results suggest that readers' culture-bound knowledge can pave the way to facilitate their English text comprehension. In fact, readers are envisaged to understand the writer's intended meaning by applying their culture-bound knowledge. (Alderson, 2008; An, 2013; Dehghan & Sadighi, 2011; Gürkan, 2012; Liu, 2015; Nassaji, 2002; Nuttall, 1998). The current research has yielded some findings which are in line with the ones in the studies of Alptekin (2006), Ketchum (2006), Salumy and Bairmani (2016) and Pulido (2007), who put emphasis on the fact that prior knowledge has definitive impact on reading comprehension and reading motivation. According to Alpetkin (2006), readers'

schema is activated if they have knowledge about the terms of customs and traditions in their short-term memory. Readers who read culturally-related passages often did not have to contend with unknown words and this led to better understanding because they were able to incorporate new knowledge into their short-term memory. In this study, therefore, culturally-free material readers utilized controlled processes that actually needed abundant endeavor. Moreover, culturally-oriented material readers utilized automated mechanisms because they were acquainted with the updated knowledge which would make it easier for them to release space in their short-term memory (Bakhtiarvand & Adinevand, 2011).

The findings of the present research confirm the idea of Alptekin (2006) who stated that cultural background knowledge can play a significant role in learning English skills. This study is also supported by the belief that the level of complexity of the texts is not the only determining element in reading comprehension, which also depends on the readers' background knowledge as well as specified contextual cues on determined cultural conventions that they are familiar with (Carrell & Eisterhold, 1983).

Generally, the findings of this research can be corroborated according to the line of reasoning that follows. As one reason, the prior knowledge of the texts enables TCG and SCG learners to activate their proper schemata more effectively and successfully than the learners in the control group (CFG) since the cultural-oriented textual and contextual signs which represented the culture in the texts were clarified in the background information passages taught to TCG and SCG and accordingly led to a greater comprehension of the text. Another justification for the findings of the current study emerges from the interactive compensatory model proposed by Stanovich (1980). It is plausible that the TCG and SCG who read texts could surmount their potential vocabulary deficits by relying on their context information in order to surmise the meaning of the unfamiliar terms; consequently, their understanding of the texts was improved and they could recall further vocabulary than the control group, who were at a disadvantage since they read texts that were not culturally-bounded. This claim is backed by Pulido's empirical work (Pulido, 2007), which claimed that the background information of readers, and more precisely their cultural context, would promote lexical inferences during reading.

The third supporting factor related to students' own motivation to learn more about the cultures. While reading about a cultural topic, students were enthusiastic to learn more since they believed it helps them communicate with foreign language speakers effortlessly. In this regard, Turkan and Çelik (2007) contended that the successful acquisition of culture facilitates sensible and flexible actions on the part of language learners as they come up with cultural norms to be followed in target language culture. Similarly, Byram (1994) claimed that foreign language learners are expected to know well about the cultural aspects of a foreign language since boosting one's awareness about a foreign language culture equals promoting cultural competence and this per se

results in more successful interaction between native language speakers and foreign language learners.

The fourth supporting factor can be the students' instrumental orientation to learn about other cultures. Integrative orientation has a strong correlation with the students' interests in learning about other cultures. On the other hand, instrumental orientation may be a less persuasive agent in learning about other cultures. In Iranian context, students' instrumental orientation was remarkably affected by socio-cultural factors, so this phenomenon may be properly explained by two sociocultural factors. On one hand, English is highly accepted to be a significant agent in social mobility and better economic status; as a result, Iranian students were encouraged to learn language skills particularly reading skill which is an important English skill for integrative motivation (e.g. getting a decent job). The interest of Iranians in travelling abroad may require the majority of students to learn English skills since they are a necessity for travelling abroad. As the students may have sociocultural orientations (Gardner, 1985), new viewpoints in society can change them. Hence, it can be claimed that teaching cultural materials can persuade Iranian upper-intermediate EFL learners to learn English skills considering Iran's current socio-cultural situation.

The plausible reason why the participants of the target culture gained higher reading motivation scores than their counterparts in the source culture group can be ascribed the fact that the texts of the target group were more authentic and more attractive for the students. This claim is supported by Bakhti-arvand and Adinevand (2011) who concluded that authentic texts affect intermediate EFL learners' reading comprehension positively.

Morgan and Fuchs (2007) clarified that motivation is a fundamental factor that encourages learners to read further and that it has a notable relevance to comprehending the texts. Likewise, Hairul et al. (2012) suggested that several researchers were totally informed of the notable role of motivation in foreign language learning and how students' comprehension is boosted by motivation (Cox & Guthrie, 2001). In the same vein, Schutte and Malouff (2007) claimed that "motivating students to read by providing them with chances to choose their own favorable sources is very essential" (p. 19). If they are permitted to pick out their reading materials, learners would be able to read more. Therefore, it can be inferred that highly motivated learners will read more than less motivated learners (Pachtman & Wilson, 2006).

Teaching culture seems to be effective for teaching language components and skills. This can change the students' attitudes towards foreign language speakers and their language. Consequently, the students may have high motivation to learn a foreign language. In this research, the findings indicated that the students presented positive attitudes toward using teaching cultural materials. Using culture-based materials can motivate the students to learn more successfully. In addition, culture-based materials can make the students curious to improve their general knowledge about different cultures. The findings are in contrast with the results of Jabeen and Shah (2014) who discovered that their par-

ticipants had predominantly negative beliefs about teaching target language culture in Government College University of Faisalabad.

Female students had better motivation scores than the male ones. Females are different from males in nature; they are realistic and sensitive; they showed more interest while reading English texts. Females were more polite and silent than the males and they were more eager to learn English language. These can be the reasons why females obtained higher reading motivation scores than the males. In addition, the better reading motivation of the females may be due to what Logan et al. (2011) came up with the idea that girls outperform boys when it comes to enjoying intrinsic motivation in reading and writing. Lucas (2010) posited that "learners are intrinsically motivated to learn speaking and reading skills and they are also intrinsically motivated through knowledge and accomplishment" (p. 39). Additionally, Tercanlioglu (2001) stated that Turkish learners had positive attitudes towards reading since they had intrinsic and extrinsic purposes in their reading. Furthermore, based on Marinak and Gambrell's (2010) ideas, when reading texts of a variety of topics, females show more intrinsic and extrinsic motivation. This superiority of girls over boys in their reading motivation may be construed as having a more highly developed critical thinking skill when reading which comes with more frequent reading particularly in first language. One reader's schema becomes more powerful through reading numerous texts and this counts considerably in promoting one's reading motivation.

Conclusion

In summary, the following conclusions are drawn in light of the empirical evidence presented in this study and in relation to the researchers' own observations during the experiment: 1. To a large extent, teaching cultural materials is helpful to EFL Iranian students. 2. Iranian EFL students are highly motivated to understand texts by referring to the cultural elements in that text. 3. Using cultural materials in teaching reading comprehension helps evoke students' thinking skills. 4. Focusing on cultural parallels and disparities between the native culture and that of the foreign cultures facilitates university instructors' teaching and EFL students' learning. 5. Teaching cultural materials provide instructors with students' background knowledge so that they can be acquainted with their abilities. 6. Knowing other cultures will definitely help EFL learners contact foreigners particularly through Internet and the social media. 7. Iranian upper-intermediate EFL learners had positive attitudes toward using cultural materials in teaching reading comprehension.

Last but not least, expanding a culture-based method in teaching may rely on multiple variables, such as the cultural knowledge of teachers, the normal environment for training, the learners' attitude and motivation toward the foreign language, and the incorporation of a well-developed culture-based program. Such variables have an effect on the progress and failure of culture instruction in language classrooms. In this regard, Damen (1986) believed that

teachers and their accurate cultural knowledge play a fundamental role in language classes as cultural guides.

This study is beneficial for EFL learners as it helps them to enhance their understanding of the target culture regarding people's way of life, ideals, behaviors and opinions, and how these express themselves or break into linguistic components and types. More precisely, this research allows learners to be informed of speech actions, connotations, manners, that is, acceptable or improper behavior, and offers them the ability to behave as a part of the target culture. In addition, the results of this research clarify the fundamental and valuable role of EFL learners' exposure to culturally-oriented materials in enhancing their reading comprehension, reading motivation, and reading attitude. The findings of the present study help EFL teachers remember that, if the unknown content of a text has an impact on reading comprehension, then it must be regarded as a standard in choosing reading materials and in evaluating reading comprehension. Consequently**,** teachers can devise numerous types of reading passages and resources to augment the cultural information of their students. On the other hand, to make teaching and learning environments extremely attractive for learners, culturally familiar reading passages should be provided by the syllabus designers. Finally, as culturally familiar reading passages are simpler than the other sorts of the reading passages, it is highly advised that EFL learners utilize these passages to improve their reading skills.

Like any other studies, this study suffered from some limitations. The small number of the participants could be a hindrance for the generalizability of the results. Nevertheless, this restriction does not decrease substantial proposals for more studies. Further studies are recommended to include more participants to get richer findings. Moreover, the limited time span of the treatment is another constraint that should be stressed. Subsequent researches in which the texts of various cultures are studied over a long period of time can be quite telling. In addition, probable unobserved associations between participants can trigger a shift in their vocabulary skills during the learning phase. This study only considered reading skill; the next studies are recommended to inspect the effects of teaching cultural materials on other skills and sub-skills of English language. Lastly, this study was carried out on Iranian upper-intermediate EFL learners, so its results should be generalized to all language learners very carefully. Future studies are advised to work on other language levels of proficiency. Due to all these shortcomings and potential deficiencies, the current research should be ingeminated and integrated with other studies in the sense of this issue.

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Appendix A:
Results of the Questionnaire

No.	Statements	Groups	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean
1	Communicating with foreigners is one of the main purposes of learning English.	TCG	0	0	3	29	18	4.30
		SCG	1	1	5	21	22	4.24
2	I like to learn more about foreign lan-guage cultures.	TCG	0	0	1	14	35	4.68
		SCG	0	0	2	23	25	4.46
3	If I have a lim-ited cultural vocabulary knowledge, it will affect my understanding of the contents.	TCG	0	2	0	29	19	4.30
		SCG	0	3	7	17	23	4.20
4	Teaching cul-tural materials can cause to better reading comprehension.	TCG	0	0	0	4	46	4.92
		SCG	0	0	0	5	45	4.90
5	Teaching read-ing comprehen-sion through using various cultural materi-als is effective and motivating.	TCG	0	0	2	16	32	4.60
		SCG	0	0	0	21	29	4.58
6	Familiarity with content and having enough cultural back-ground knowledge are the major fac-tors that make reading com-prehension better.	TCG	0	0	0	5	45	4.90
		SCG	0	0	0	6	44	4.88
7	The English text, which includes no new words, might not be under-standable, mostly since the necessary soci-ocultural back-ground knowledge is lacking.	TCG	0	0	3	16	31	4.56
		SCG	0	0	1	19	30	4.58

8	Lack of necessary cultural knowledge could result in weak performance in reading comprehension.	TCG	2	0	2	22	24	4.32
		SCG	0	1	0	28	21	4.38
9	When I read English texts that are related to my culture, I feel I have better comprehension than when the texts are unrelated to my culture.	TCG	0	0	0	15	35	4.70
		SCG	0	0	0	10	40	4.80
10	When reading a text, the unfamiliar vocabulary affects my reading comprehension.	TCG	0	1	2	20	27	4.46
		SCG	0	0	6	24	20	4.28
11	I cannot understand the meaning of the text if I am unfamiliar with topics related to the foreign cultures.	TCG	0	0	4	20	26	4.44
		SCG	0	0	0	33	17	4.34
12	Linguistic complexity of a text affects my reading ability.	TCG	2	6	13	15	14	3.66
		SCG	1	7	10	13	19	3.84
13	If I have background knowledge of a foreign culture, I find that I face fewer problems with my reading comprehension.	TCG	0	0	3	10	37	4.68
		SCG	0	0	1	16	33	4.64
14	When I read English texts, I often translate them into Persian.	TCG	9	11	7	13	10	3.08
		SCG	9	9	13	10	9	3.05
15	I like to familiar with the Persian culture.	TCG	0	0	0	29	21	4.42
		SCG	0	0	0	18	32	4.64
16	I like to familiar with American culture.	TCG	1	1	2	14	32	4.50
		SCG	2	0	4	19	25	4.30
17	I like to familiar with the British culture.	TCG	0	3	5	10	32	4.42
		SCG	1	2	0	24	23	4.36

18	When I read a text concerning unfamiliar foreign countries, I feel that the text is difficult to understand.	TCG	0	0	1	10	39	4.76
		SCG	0	1	4	13	32	4.52
19	I agree that I will grasp the contents of a text more easily when I am familiar with a foreign culture.	TCG	0	0	1	11	38	4.74
		SCG	0	0	0	7	43	4.86
20	I think that the reading habits I cultivated in my childhood are helpful in learning a foreign language.	TCG	0	3	11	16	20	4.06
		SCG	1	4	9	20	16	3.92
21	I think that these reading habits reinforce my reading speed.	TCG	0	2	10	19	19	4.14
		SCG	1	3	8	12	26	4.18
22	When I read an English text or sentence for the first time, I find it simple to comprehend, if I have enough cultural background knowledge.	TCG	0	0	0	11	39	4.78
		SCG	0	0	0	9	41	4.82
23	I think efficient reading strategies are important.	TCG	0	0	12	21	17	4.10
		SCG	0	1	14	15	20	4.08

The Impact of Integrating Blended Learning with Task-Based Language Learning on Reading Comprehension of Iranian EFL Learners

Research Article

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Abstract

Task-based language learning and blended learning have become an ideology in modern EFL teaching and are considered to be an effective trend in teaching English as a foreign language. Thus, the present study explored the effect of integrating blended language learning into task-based language learning on Iranian male and female intermediate EFL learners' reading comprehension ability. Initially, four groups including two experimental groups and two control groups were formed. The two experimental groups were taught through blended integrated task-based lan-

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guage learning. In so doing, Staker and Horn's (2012) blended learning model was integrated into Ellis' (2017) task-based model in order to improve participants' reading comprehension ability. In this innovative approach, learners were involved in a series of offline and online focused and unfocused task-based reading comprehension activities, whereas the control groups were taught through conventional reading comprehension methods using traditional reading strategies. Accordingly, the results of ANCOVA indicated that learners in the experimental groups obtained considerably higher scores than those in the control groups. Further, the results of two-way ANOVA depicted that there was no substantial difference between the female and male learners across groups. Finally, the pedagogical implications of this study suggested that curriculum designers and materials developers can incorporate the innovative notion of integrating blended learning into task-based language learning method to transform the learning environment into more student-centered classrooms. More importantly, the teachers can develop learners' critical thinking and metacognitive skills by designing interactive reading comprehension online tasks.

Keywords: hybrid/blended learning, task-based language learning, reading comprehension, reading strategies, gender

Introduction

Reading as a dynamic cognitive function involving a collection of mechanisms and strategies is one of the most critical learning challenges students face. Although the majority of Iranian English institutes' and schools' curricular programs are reading-oriented, there is no emphasis on using different reading strategies and as a result, reading comprehension ability is a significant challenging task for many Iranian EFL learners (Khataee, 2018; Namaziandost, 2020; Taghizadeh & Khalili, 2019). However, many researchers have found task-based language learning as the most effective learning strategy in enhancing and improving learners' reading comprehension ability (Chalak, 2015; Kalantari & Saedi, 2009; Madhkhan & Musavi, 2017; Noshad & Zamanian, 2017; Rezaei et al., 2017; Setayesh & Marzban, 2017).

As Ellis (2017) stated, task-based language learning cannot be viewed as a single, monolithic solution. In his view, hybrid/task-based language learning comprise of both focused and unfocused tasks. He referred to focused tasks as the ones whose primary learning focus is on learning specific and particular grammatical structures (focus on form) implicitly; this means that the students are not explicitly aware of the grammatical feature that they are learning; thus they learn the grammatical features incidentally. But as he mentioned, on the other hand, unfocused tasks emphasize on learners' interaction and negotiation of meaning (focus on meaning).

Similar to task-based language learning, web 2.0 technologies also encourage learners to become more active, more self-directed and more self-regulated learners. Among technology-mediated learning methods, blended learning is considered to be one of the most effective and beneficial approaches to both

teachers and learners (Bonk & Graham, 2006). In line with the previous studies, Staker and Horn (2012) proposed an innovative design for blended learning which is called 'Station Rotation Models'. This model includes different learning stations and the students have to rotate between the stations based on the fixed schedule. These stations comprise teacher-led instruction station, online learning station, collaborative learning station. At each station, one course assignment must be completed and the teacher monitors learners' progress. Each lesson concludes with online assessment, or a project will be given to the students at the end of the lesson.

Literature Review
Theoretical Underpinning

The type of tasks is considered as the core of the task-based language learning methodology. As Ellis (2017) further suggested, grammar might not be fundamental to the task-based language learning, but it does have a significant role within it. Tasks may be unfocused or focused. Unfocused tasks are tasks designed to give learners the ability to use language in general in a communicative manner. Focused tasks are tasks designed to provide opportunities for communication by using a specific linguistic feature (usually a grammatical property). Hence, Ellis (2017) proposed the framework for classifying tasks based on input-providing tasks and output-providing tasks. Ellis (2017) made a distinction between input-providing tasks and output-providing tasks. Input-providing tasks provide comprehensible input for L2 learners. Moreover, according to Ellis (2017), output-providing tasks require speaking and writing to achieve the outcome and thus, such skills provide an opportunity for learners to communicate and negotiate in target language and it leads to learners' higher level language development.

As the classroom technology continues to evolve rapidly, teachers are now starting to introduce more innovative online and computer-based tasks, activities and assessments. But, teachers realize that the emphasis on some offline activities such as collaborative and cooperative learning in the form of face-to-face exercises should remain as the core of any language teaching method. Therefore, the notion of the computer-based and classroom-based lessons are overlapping. This mixture of technology-based as well as the traditional paper and pencil classroom-based learning experience is known as hybrid or blended learning (Bersin, 2004). Station-rotation model is gaining popularity among EFL teachers and practitioners since it allows teachers to create a nice balance between online and offline work (Tucker, 2020). According to Staker and Horn (2012), in the Rotation models, the students have to rotate between different language modalities based on the fixed schedule. At least one of the modalities should be technology-based and online learning. These learning stations comprise different activities such as collaborative learning (in small or large groups), teacher-led instruction, online tasks and activities, paper and pencil assignment, formative and summative assessments.

Previous Studies

Task-based language learning has emerged as an intellectual communicative method and thus, learners are faced with similar tasks to those they have to perform outside the classroom (Ahmed et al., 2020). Task-based language learning is recommended as a replacement for the conventional approach in the teaching of English as it encourages a system in which the use of practical communicative languages is required (Rostami et al., 2020). Recently, using task-based language learning method and task-based activities have gained special attention in Iranian educational context. For instance, Tavakoli et al. (2019b) explored the impact of computer-assisted language learning-mediated task-based language teaching on EFL university students' motivation towards reading. The experimental group was taught via computer-assisted language learning-mediated task-based language learning method, while the control group only received a traditional task-based reading instruction. The results of the study suggested that technology-mediated task-based language learning improved and enhanced learners' motivation with regard to reading. In another study, Mehri and Tavakoli (2020) explored the effect of technology-mediated reading tasks on autonomy and metacognitive skills used by Iranian EFL inter-mediate learners. Mehri and Tavakoli (2020) found that technology-mediated task-based instruction was effective in enhancing learners' autonomy and met-acognitive strategy use in comparison to the traditional explicit reading com-prehension strategy. Further, in the study done by Rostami et al. (2020), the experimental group was taught through task-based language learning method whereas the control group was taught through conventional book-based meth-od. The results of this study demonstrated that task-based activities improved students' reading comprehension ability.

Blended learning improves student-teacher and student-student engage-ment and creates a more diverse and engaging learning environment, resulting in increased participation (Donnelly 2009). For instance, Alroomy, and Al-thewini (2019) studied the effect of blended learning on medical students' reading performance. The results of the study indicated that online extensive reading strategy facilitated the learners' reading decoding process. Additional-ly, Macaruso et al. (2020) investigated the effect of blended learning on elemen-tary students' reading skill. Experimental groups showed higher gains on the reading test than control groups. Thus, the outcomes of this study suggested that bended learning had a significant effect on elementary students' reading skill.

Considering the significant effect of task-based language learning as well as the demanding notion of blended learning in the EFL context, the present study attempts to open new horizons highlighting the effect of blended integrated task-based language learning as an innovative strategy for Iranian EFL learners to overcome reading challenges. Further, the present study intends to intro-duce an exciting and enjoyable reading approach in order to establish a positive attitude towards reading skill among Iranian EFL learners. Moreover, several reports on task-based language learning have been undertaken in Iran but little

research has been performed to determine the real activities of teaching English at high schools as well as language institutes. Therefore, the results of the present study can provide EFL researchers and practitioners with more awareness concerning the possible contributions of using blended integrated task-based language learning materials to teaching and learning reading comprehension ability. In line with the significance of this research, the present study attempted to address the following questions:

RQ1: Does the integration of blended learning into task-based language learning have any effect on Iranian EFL learners' reading comprehension ability?

RQ2: Does the effect of the integration of blended learning into task-based language learning on Iranian EFL learners' reading comprehension ability differ in terms of gender?

Method
Participants

The study was conducted with 80 Iranian EFL intermediate learners (43 females and 37 males) studying at a private language institute. The participants were 37 teenage males and 43 teenage female learners attending the institute. In order to make sure of homogeneity, subjects were chosen from among 120 students, based on their scores on the OQPT test. After scoring the papers, those with scores in the range of 30-39 from the total score of 60 on the OQPT were selected as the intermediate level as the main participants of the research. Afterwards, learners were assigned to four groups: Two experimental groups as female experimental group (n = 21) and male experimental group (n = 19) as well as two control groups which consisted of female control group (n = 22) and male control group (n = 18).

Instruments

Oxford Quick Placement Test (OQPT). OQPT test was administered as a criterion of learner homogeneity. It's worth mentioning that the OQPT test was taken from a study done by Afshinfar and Shokouhifar (2016). According to Geranpayeh (2006), OQPT was validated in 20 countries by over 6000 students. Moreover, the reliability of the test was tested by Allan (2004), who claimed that OQPT has met the international test characteristics and scoring criteria. The test comprised of 60 multiple-choice questions and is divided into two parts. Part one includes 20 reading comprehension questions and 20 vocabulary questions. Part two which is designed for learners with higher language proficiency is comprised of 10 vocabulary questions and 10 grammar questions and 30 minutes were allocated to the test. Subsequently, 80 out of 120 learners who scored in the range of 30-39 from the total score of 60 were considered as intermediate learners and were chosen as the main participants.

Reading Comprehension Pretest. In the pre-intervention stage, all participants were required to answer the online reading comprehension test. The test consists of five different passages with the variety of real-life and authentic topics (i.e., geography, archaeology, climate change, oceanography and life) retrieved from National Geographic website via ngllife.com. Every topic included 10 multiple-choice questions. Therefore, the pretest included 50 multiple-question items. The comprehension reading test was chosen and conducted as both pretest and posttest. Prior to the main study, the pretest of reading comprehension was piloted with 50 learners who were representative of the main participants.

Table 1
Descriptive Statistics of the Reading Comprehension Pretest for Piloting Purpose

	N	Range	Minimum	Maximum	Mean	Std. Error	Std. Deviation	Variance
Reading_Test	50	12.00	36.00	48.00	42.1800	.55158	3.90024	15.212
Valid N (listwise)	50							

It's worth mentioning that Cronbach alpha's formula for the pretest items was employed and the result showed a reliability of .76 (r = .76) which is considered satisfactory (Brown & Hudson, 2002).

Reading Comprehension Posttest. In the post-interventions stage, the posttest (i.e., the same test used in the pretest) was carried out to close the solid phase of the study in order to analyze the effects of treatment. The researcher used the same test twice, both in the pretest and the posttest stages to ensure comparability regarding the difficulty of the comprehension questions and enhance the reliability of the results. However, using the same test twice could make the learners learn from the test. Hence, to eliminate this practice effect, the researchers did not check and discuss the answers of the pretest with the learners, and the learners were not given further access to the pretest material. Furthermore, to eliminate the memory effect, there was a one-month break between the pretest and the posttest.

Internet-Based Materials

TED Ed. Through Ed.Ted.com teachers are able to submit their own interactive lessons. Each lesson is comprised of TED Talks videos in which experts deliver lectures in different fields to motivate, engage and inspire and introduce the ideas which can change the world. In addition to the video, the teachers can create a variety of different tasks and activities which require learners' deep thinking to develop students' critical thinking skills discussion questions, in which the learners should discuss and share their answers with their partners or in a group which requires collaboration and cooperation.

GoFormative. Teachers are able to create online paperless assignments via Goformative.com. Additionally, the teacher can employ pictures and videos to create interactive and innovative assignments. Every student is required to do the assignments and submit them to the teacher. Teacher can rate the assignments and give feedback to the students based on their performances. Further, the Teacher Dashboard enables the teacher to track every student's progress during the course.

Course Books

Creative Thinking and Reading with TED Talks. *Creative Thinking and Reading with TED Talks* (written by Lauri Blass, Mari Vargo and Eunice Yeates, 2015) is comprised of 10 units based on different authentic and real-life themes (i.e., life, science, education, tech, creativity, etc.) and each unit includes three parts. In the first part, pre-reading, post-reading and text-based critical thinking tasks are presented. In the second part, pre-viewing, while-viewing, post-viewing, and video-based (TED Talks videos delivered by the experts in field lecturing about real-life and authentic topics) critical thinking tasks are provided. In addition, project works are presented in the third part. It is worth mentioning that this course book was used to teach reading in experimental groups.

Practice Makes Perfect Intermediate English Reading and Comprehension. *Practice makes perfect intermediate English reading and comprehension* (written by Diane Engelhardt, 2013) consists of 15 units and each unit is provided with pre-reading (introduction to topic), reading text (after-reading exercise), vocabulary (understanding and learning vocabularies), reading strategies (paraphrasing, organizing and summarizing reading text), and critical thinking (evaluating the information in the reading text). It should be noted that this course book was used to teach reading in control groups.

Procedure
Pre-Treatment Stage

To collect the data of the current study, first, reading comprehension pretest was given to the learners. The test included 50 questions in the form of paper-and-pencil. The learners were asked to fulfill the activities in 45 minutes on the provided answer sheet. This test was administered as pretest and the posttest of the study.

Experimental Groups

In treatment groups reading class, students were taught through blended integrated language learning. The time of the whole treatment for both experimental groups was one month (four sessions per week) and 90 minutes per session were devoted to the treatment.

Pre-Task Stage/Direct Instruction Station. In this stage, the teacher introduced the content and lesson. Then, in order to activate learners' background knowledge about the topic, he went through pre-reading and warm-up activities. These activities are comprised of four tasks. In task A, for instance, if the topic was about 'infographic information'- the students looked at the infographic information presented in their course book and chose the three best answers that could serve as the title of the infographic picture. In Task B, students wrote their own ideas about the story behind the infographic information and also discussed their answer with their partner (combining focused and unfocused tasks together). In task C, the students discussed their opinion about whether the infographic information was effective (unfocused task). In Task D, they read the introductory paragraph and discussed their own opinion with their partner (unfocused task).

While-Task Stage/ Teacher-Led Station. In this phase, the students read and comprehended the passage while learning the bolded words. Then, in task A (Getting the Main Ideas) they used the information from the passage and chose the best answer for each multiple choice questions. In task B (Understanding Details), they engaged in writing (focused task) and discussed (unfocused task) their own detailed ideas. In task C, after they understood the infographic information presented in their book, they answered the related questions. In task D (Getting Meaning from Context), students guessed the meaning of compound words, then wrote (focused task) and discussed (unfocused task) their own ideas. In task E (Building Vocabulary), learners answered the multiple choice questions; for example, they used the "Bandwidth of the Senses" infographic and the words in the box to complete the paragraph.

While-Task Stage/ Online Station. In this phase, the learners logged in to their account and then, they engaged in interactive tasks and activities that the researcher had previously created via TedEd website (ed.ted.com). In this online and interactive task, the students watched a video about "David McCandless makes data visualizations". Then, they answered two analytical questions and discussed their answers with their partners. Then, they went to McCandless's website (informationisbeautiful.net) and found an infographic that they thought was particularly interesting and effective and shared it with the class.

Post-task Stage/Online Station. In this stage, learners were divided into small groups. Afterwards, the teacher assigned a project to every groups. These projects were designed by the researcher via using Goformative.com. The teacher posted a variety of reading comprehension passages on the website and every group was assigned to different reading topics. For instance, group A was assigned the topic of "Sharks" and Group B was assigned to the topic of "Volcanoes". Every online assignment comprised of three parts. In part one, learners watched a video from National Geographic to get familiar with the topic; then they read online reading passages and finally they answered the online multiple choice questions.

Post-Task/ Offline Station*.* In the offline stage, the teacher gave pairs of students a set of sentences, which they put in order to make a story. For example, a story about 'Incas: Lost Society'. (at first, the sentences were in the correct order, but the teacher had mixed them up so that he would not give them out in a perfect sentence). While they did this, the teacher went round the class monitoring and assisting students. Then, the teacher went through the sentences with the class to make sure that everyone had the correct order. He explained that the end of the story was missing, and asked the students, once again in pairs or groups, to try to work out what the end might be. They wrote a final sentence or two. Finally, the class listened to the different endings and decided which one they liked best.

Control Groups

Both control groups received 90 minutes of the institute's regular reading instruction per session for 16 consecutive sessions to control for novelty effect, group size, and independence of the person who delivered the intervention. The same teacher who delivered the treatment to experimental groups provided the traditional reading instructional routines that are currently used in language institutions and schools to the control group.

Post-Treatment Stage. After one month of treatment on the experimental group and control group, which took 16 sessions, 90 minutes each, the participants in all groups took a 50-item reading comprehension posttest, and the results were compared and contrasted to check the hypotheses of the study.

Results
Descriptive Statics

Initially, the assumptions underlying ANCOVA and two-way ANOVA were analyzed. For the first assumption, the descriptive statistics for kurtosis and skewness were checked to ensure that all scores were normally distributed. Afterwards, to achieve a greater degree of certainty, the Shapiro-Wilk normality test was also conducted. For checking the second assumption, Levene's test was run to assess the equality of variance. Regarding the third assumption, ANCOVA was assessed in order to control pre-existing differences (covariate) and to adjust the posttest results. Finally, the linearity assumption was tested, since ANCOVA implies a linear relation between the dependent variable and the covariate (Tabachnick & Fidell, 2013).

Assumptions for ANCOVA and Two-Way ANOVA

In order to interpret the data obtained from this analysis, as stated above, it was important to test the four assumptions. Descriptive normality statistics (Kurtosis & Skewness) were tested along with inferential normality tests to determine whether the data obtained were normal. If Kurtosis and Skewness

are between -2 and +2, the data obtained are assumed normal (Tabachnick & Fidell, 2013).

Table 2
Descriptive Statistic for Kurtosis and Skewness

	N	Minimum	Maximum	Mean	Std. Error	Std. Deviation	Skewness	Std. Error	Kurtosis	Std. Error
Pretest	80	30.00	40.00	35.1125	.28518	2.55072	-.143	.269	-.672	.532
Posttest	80	30.00	48.00	39.8625	.62509	5.59100	.082	.269	-1.522	.532
Valid N (listwise)	80									

According to Table 2, the Skewness and Kurtosis values for the pretest were -.143 and -.672 respectively, and for the posttest were .082 and -1.522, respectively. Since such results are between -2 and +2 and the data tend to be normally distributed, the usual curve histograms for the pretest and posttest of the three groups showed the distribution of data is normal. However, the inferential statistics of Kolmogorov-Smirnov and Shapiro-Wilk's tests of normality were also conducted to verify the data obtained to achieve a higher degree of certainty. Since every group has a sample size of less than 50, Shapiro-Wilk normality test was conducted to assess the normal distribution of the scores. The outcomes of normality tests are presented in Table 3.

Table 3
Test of Normality of Pretest and posttest for Male and Female Learners Across Groups

	Groups	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Pretest	MaleExp	.149	19	.200[*]	.965	19	.664
	FemaleExp	.144	21	.200[*]	.956	21	.447
	MaleCon	.152	18	.200[*]	.934	18	.232
	FemaleCon	.126	22	.200[*]	.962	22	.520
Posttest	MaleExp	.173	19	.136	.932	19	.187
	FemaleExp	.204	21	.023	.924	21	.105
	MaleCon	.198	18	.060	.931	18	.199
	FemaleCon	.184	22	.052	.920	22	.077

As it is indicated in Table 3, ShapiroWilk test of normality revealed that the p-values of the pretests and posttests of the experimental and control groups are more than .05, indicating a normal distribution of data (pretest p-values: ME = .664, FE = .447, MC = .232, FC = .520; posttest p-values: ME = .187, FE = .105, MC = .199, FC = .077). Therefore, the data is normally distributed.

Leven's homogeneity test of variance was performed to assess the equality of variance across the four groups' samples. The findings are illustrated in Table 4.

Table 4
Levene's Test

Levene Statistic	df1	df2	Sig.
2.548	3	76	.268

As it shown in Table 4, the variance is homogenous across experimental and control groups, F (3,76) = 2.548 < 4.38, *p*= .268 > .05, indicating that another assumption underlying the application of ANCOVA test and two-way ANOVA test was met.

Another assumption to be tested is the covariate-dependent variable relationship for each group. This included testing to investigate if the covariate and dependent variable had a statistically relevant relationship. If the interaction at an alpha level of .05 is important, this statement is subject to violation. The results are shown in Table 5.

Table 5
Test of ANCOVA

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1437.042[a]	7	205.292	83.908	.000	.891
Intercept	363.934	1	363.934	148.749	.000	.674
Groups	43.830	3	14.610	5.971	.001	.199
Pretest	12.190	1	12.190	4.982	.029	.065
Groups * Pretest	15.909	3	5.303	2.167	.099	.083
Error	176.158	72	2.447			
Total	122670.000	80				
Corrected Total	1613.200	79				

a. R Squared = .891 (Adjusted R Squared = .880)

As shown in Table 5, the significance value is greater than the critical value (*p* = .099 > .05). Therefore, it can be concluded that the principle of regression slopes homogeneity was not violated. The linearity of regression line slopes is illustrated in Figure 1 below. To check the linearity assumption, it was necessary to check the relation between the dependent variable and the covariate for the four groups (Figure 1).

Figure 1

The Linear Relationship Between Dependent and Covariate Variables
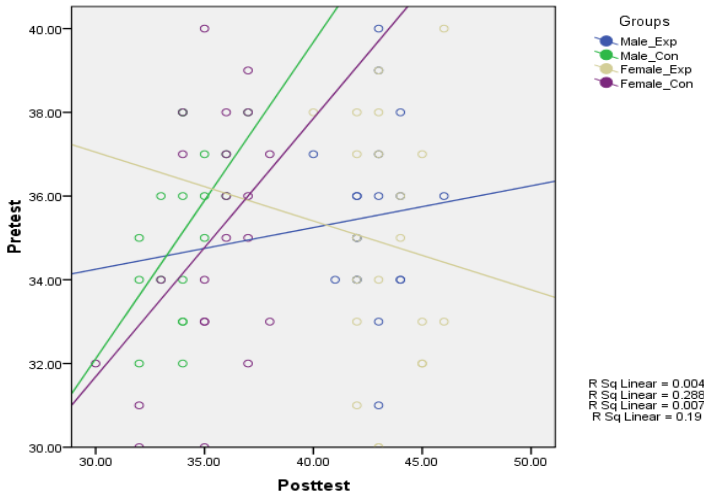
As depicted in Figure 1, a linear relationship existed across the four groups, suggesting that there was no evidence of a curvilinear relation. Thus the linearity assumption has been met.

Investigating the Null Hypotheses

Having established the prerequisite assumptions, the ANCOVA and two-way ANOVA were run to test the null hypotheses. Table 6 shows the descriptive statistics indicating the outcomes of all male learners' performance in the posttest.

Table 6

Descriptive Statistics for the Posttests of Male Learners across Groups

Groups	Mean	Std. Deviation	N
Male_Exp	42.7895	1.31567	19
Male_Cont	34.1111	1.40958	18
Total	38.5676	4.59795	37

Table 6 indicates that there were differences in the two groups' reading comprehension posttests (ME, M = 42.78, SD = 1.31; MC, M = 34.11, SD = 1.40). Further, ANCOVA was run to compare the effectiveness of two different interventions designed to improve male participants' reading comprehension. Male participants' scores on the pretest of reading comprehension ability was used as the covariate in this analysis. The outcomes are shown in table 7.

Table 7
Test of ANCOVA

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	701.627ᵃ	2	350.814	200.621	.000	.922
Intercept	119.829	1	119.829	68.527	.000	.668
Pretest	5.482	1	5.482	3.135	.086	.084
Groups	682.950	1	682.950	390.560	.000	.920
Error	59.454	34	1.749			
Total	55797.000	37				
Corrected Total	761.081	36				

a. R Squared = .922 (Adjusted R Squared = .917)

Based on Table 7, after adjusting for pretest scores, there was a meaningful difference between the male experimental group and male control group on reading comprehension posttest scores, F (1,34) = 390.5 > 4.38, p = .00 < .05, partial eta squared = .920), suggesting that integrating blended learning into task-based language learning could significantly improve male participants' reading comprehension ability. Table 8 provides the descriptive statistics showing the outcomes of all female learners' performance in the posttest.

Table 8
Descriptive Statistics for Posttest of Female Learners Across Groups

Groups	Mean	Std. Deviation	N
Female_Exp	43.3333	1.55991	21
Female_Cont	35.2273	2.06863	22
Total	39.1860	4.48413	43

Table 8 indicates that there were differences across the two female groups' reading comprehension posttests (FE, M = 43, SD = 1.55; FC, M = 35.22, SD = 2.06). In addition, ANCOVA test was performed to evaluate the efficacy of two separate approaches designed to enhance reading comprehension ability of female learners. In this research, female participants' scores on the reading comprehension ability pretest were considered as the covariate. The findings are shown in Table 9.

Table 9
Test of ANCOVA

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	712.265[a]	2	356.132	107.717	.000	.843
Intercept	351.440	1	351.440	106.298	.000	.727
Pretest	6.283	1	6.283	1.901	.176	.045
Groups	707.123	1	707.123	213.880	.000	.842
Error	132.247	40	3.306			
Total	66873.000	43				
Corrected Total	844.512	42				

a. R Squared = .843 (Adjusted R Squared = .836)

As it shown in Table 9, after adjusting for pretest scores, there was a significant difference between the female experimental group and female control group on reading comprehension posttest scores (F $(1,40)$ = 6.283 > 4.38, p = .00 < .05, partial eta squared = .842), indicating that integrating blended learning into task-based language learning could highly enhance female participants' reading comprehension ability. Table 10 shows the means of the scores for the post-tests of the four groups.

Table 10
Pairwise Comparison

(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
Male_Exp	Male_Con	8.705*	.520	.000	7.668	9.741
	Female_Exp	-.548	.501	.278	-1.547	.451
	Female_Con	7.484*	.496	.000	6.496	8.472
Male_Con	Male_Exp	-8.705*	.520	.000	-9.741	-7.668
	Female_Exp	-9.253*	.504	.000	-10.257	-8.248
	Female_Con	-1.221*	.498	.017	-2.214	-.228
Female_Exp	Male_Exp	.548	.501	.278	-.451	1.547
	Male_Con	9.253*	.504	.000	8.248	10.257
	Female_Con	8.032*	.479	.000	7.078	8.986
Female_Con	Male_Exp	-7.484*	.496	.000	-8.472	-6.496
	Male_Con	1.221*	.498	.017	.228	2.214
	Female_Exp	-8.032*	.479	.000	-8.986	-7.078

After running the pairwise comparisons, the researcher used the results to check the first null hypotheses by comparing the mean differences between the four groups.

Table 11

Descriptive Statistics for the Posttest of Male and Female Learners across Groups

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	Upper Bound	Minimum	Maximum
Male_Exp	19	42.7895	1.31567	.30184	42.1553	43.4236	40.00	46.00
Male_Con	18	34.1111	1.40958	.33224	33.4101	34.8121	32.00	37.00
Female_Exp	21	43.3333	1.55991	.34040	42.6233	44.0434	40.00	46.00
Female_Con	22	35.2273	2.06863	.44103	34.3101	36.1445	30.00	38.00
Total	80	38.9000	4.51888	.50523	37.8944	39.9056	30.00	46.00

Table 11 demonstrates that there were differences across all of the four groups' reading comprehension posttests (ME, M = 42.78, SD = 1.31; MC, M = 34.11, SD = 1.4; FE, M = 43, SD = .1.55; FC, M = 35.22, SD = 2.06). Additionally, two-way ANOVA test was run to explore the impact of integrating blended learning into task-based language learning on male and female participants. The results are shown in Table 12.

Table 12

Test of Two-Way ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1409.734	3	469.911	175.524	.000
Within Groups	203.466	76	2.677		
Total	1613.200	79			

According to Table 12, the two-way ANOVA results between the posttest scores of male and female experimental and control groups shows a significant difference among the posttests of four groups ($F (3, 76) = 175.52 > 4.38$, $p = .000 < .05$). Thus, it can be concluded that the four groups were different in their reading comprehension ability. Since the sample sizes across groups were not equal, the researcher conducted Scheffe's post-hoc test to highlight the differences among the groups. The results of Scheffe's post-hoc are presented in Table 13.

Table 13

Results of Sheffe's Post-Hoc Test

(I) Groups	(J) Groups	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Male_Exp	Male_Con	8.67836*	.53818	.000	7.1396	10.2171
	Female_Exp	-.54386	.51806	.777	-2.0251	.9374
	Female_Con	7.56220*	.51244	.000	6.0971	9.0274
Male_Con	Male_Exp	-8.67836*	.53818	.000	-10.2171	-7.1396
	Female_Exp	-9.22222*	.52556	.000	-10.7249	-7.7195
	Female_Con	-1.11616	.52002	.212	-2.6030	.3707

Female_Exp	Male_Exp	.54386	.51806	.777	-.9374	2.0251
	Male_Con	9.22222*	.52556	.000	7.7195	10.7249
	Female_Con	8.10606*	.49917	.000	6.6788	9.5333
Female_Con	Male_Exp	-7.56220*	.51244	.000	-9.0274	-6.0971
	Male_Con	1.11616	.52002	.212	-.3707	2.6030
	Female_Exp	-8.10606*	.49917	.000	-9.5333	-6.6788

Since a significant result was obtained in the overall analysis of variance, Sheffe's post-hoc test was conducted to check the second null hypothesis and compare the combined mean scores across the all four groups.

The First Null Hypothesis

The first null hypothesis of the current study stated that the integration of blended learning into task-based language learning does not have any meaningful effect on Iranian EFL learners' reading comprehension ability. To test this null hypothesis, as presented in Table 10, the mean difference of the male experimental group and male control group is MD = 8.705, p = .000, p < 0.05, with the male experimental group outperforming the male control group. Further, the mean difference of female experimental group and female control group is MD = 8.032, p = .000, p < 0.05, with the female experimental group outperforming female control group. Therefore, it can be inferred that the first null hypothesis of the study is rejected and thus the integration of blended learning into task-based language learning has had a meaningful effect on Iranian EFL learners' reading comprehension ability.

The Second Null Hypothesis

The second null hypothesis of the current study stated that the integration of blended learning into task-based language learning does not have any meaningful effect on Iranian EFL learners' reading comprehension ability differ with gender. According to table 13, the mean difference of female experimental group and female control group is MD = 8.10, p = .000, p < 0.05; thus, the female experimental group outperformed the female control group. Moreover, the mean difference of female experimental group and male control group is MD = 9.22, p = .000, p < 0.05, with female experimental group outperforming the male control group. Further, as the mean difference of female experimental group and male experimental group is MD = .54, p = .77, p > 0.05, therefore, it can be inferred that there was no meaningful difference between the reading scores of female experimental group and the male experimental group. Additionally, the mean difference of female control group and male control group is MD = 1.11, p = .212, p > 0.05; hence, it can be concluded that there was not any meaningful difference between the reading scores of female learners and male learners in control groups. Therefore, it can be concluded that the second null hypothesis of the study is retained and thus the integration of blended learning

into task-based language learning does not have any meaningful effect on Iranian EFL learners' reading comprehension ability in terms of gender.

Discussion

The present research explored the effects of integrating blended learning into task-based language learning on EFL male and female learners' reading comprehension ability. In this regard, four groups (two experimental and two control groups) formed the sample of the study. The findings revealed learners in experimental groups who received the treatment improved more significantly than those in the control groups in terms of their reading comprehension ability. The results of ANCOVA indicated that reading ability of both male and female learners in experimental groups were highly and significantly improved as the result of using blended integrated task-based language learning strategies. Further, the results of the two-way ANOVA revealed there was not any meaningful difference between male and female learners.

The outcomes of this research support the results of several studies which found that the combination of technology and task-based language learning has a more significant effect than traditional methods on learners' reading comprehension (Mehri & Tavakoli, 2020; Rostami et al., 2020; Tavakoli et al., 2019).

The results of this research are in alignment with the several studies which examined the efficacy of blended learning in improving reading comprehension among EFL students (Alroomy & Althewini, 2019; Macaruso et al., 2020).

Conclusion and Pedagogical Implications

This research has found that the integration of blended language learning into task-based language learning improves the male and female learners' reading comprehension ability. Moreover, the results found that female and male learners in experimental groups who were exposed to blended integrated task-based language learning strategy gained the highest mean score and thus, outperformed the two control groups of this study.

The findings of this study suggested that the learners are no more confined to the traditional paper-based reading comprehension approach. Therefore, the students are not limited to read an extensive amount of reading text, which ultimately makes the reading process boring and tedious and thus, the students become passive learners. Instead, using focused and unfocused reading-based tasks makes learners more active learners and the reading process will become more enjoyable and exciting as well. Through focused reading-based tasks, students also develop their writing skill as well as grammatical knowledge and by using unfocused reading-based tasks, learners are required to participate in online and offline collaborative learning stations and are thus encouraged to communicate with peers and develop their communicative skills. Furthermore, teachers develop learners' critical thinking by designing and creating online

reading-based tasks. The participants of this study adopted more positive attitudes towards reading when they were asked to study the lessons and fulfil the task provided in ed.ted.com, goformative.com and TED Talks videos. Moreover, by engaging in offline and online evaluative and analytical reading comprehension tasks which were provided on TEDEd website, learners developed their critical thinking skills. Additionally, at the end of each session, the teacher assigned each group to different online projects and through using group project work, not only did students learn how to collaborate together in groups — providing their own feedback, listening to others, and resolving disagreements as they come up — they also developed meaningful relationships with teachers, which reinforce how fun learning is. Even while working on projects, students develop relationships with community leaders, gaining knowledge for careers and beyond. Further, by engaging in project work, learners also develop their creative and critical thinking skills and build on their research skills. Since, based on the outcomes of the present research, there was no substantial difference between male and female learners in experimental groups, it can be inferred that blended integrated task-based language learning is an effective reading approach for both male and female EFL learners and thus decision-makers, policy-makers, and curriculum designers can incorporate the notion of blended integrated task-based language learning approach in order to enhance and improve EFL learners' reading comprehension ability across gender.

Suggestions for Further Studies

This study explored the effect of blended integrated task-based language learning strategy on male and female learners' reading comprehension ability. This application was found to be beneficial in enhancing students' reading comprehension abilities by offering an innovative learning experience to students who were able to engage in online and offline learning by accomplishing interactive and graded reading comprehension tasks. In this study, Ellis's (2017) blended integrated task-based language learning was used as an innovative way to improve male and female learners' reading comprehension ability. Another study can be done using different frameworks proposed by different scholars. In the presented study, the Station-Rotation model was employed as a framework for blended learning. Another study can be carried out using different blended leaning frameworks.

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The Effect of Task Difficulty on the Quantity and Quality of Iranian Lower-Intermediate EFL Learners' Code-Switching

Research Article

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Abstract

The objective of the present study was two-fold. First, the effect of speaking task difficulty on EFL lower-intermediate learners' quantity of code-switching was examined. Second, the effect of speaking task difficulty on the participants' quality of code-switching was studied. The participants of this study included 61 lower-intermediate language learners in a private English language institute in Iran. The participants performed twelve

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speaking tasks with easy, medium, and difficult levels of complexity developed by the researchers. The findings indicated that less than 10 percent of students' clauses included code-switching. The participants employed significantly more code-switching items under difficult task condition. The findings showed that the participants used code-switching for different purposes including vocabulary, syntactic structure, content, rubric clarification, turn-taking, and pronunciation. The learners employed expressive, referential, and directive language functions to fulfill their purposes and the number of directive items rose as the task difficulty level increased. Regarding the addressee of learners' code-switches, the inductive analysis of the data showed that the code-switches were self-directed, peer-directed, teacher-directed, teacher and then peer-directed, and peer and then teacher-directed. The participants addressed almost half of the code-switches to their peers; however, more difficult tasks resulted in a higher number of teacher-directed code-switching items.

Introduction

The presence of students' L1 in EFL (English as a Foreign Language) classes has been an interesting area of research for the last three decades. The use of students' L1 in classes is more probable when students are learning in a context in which English is regarded as a foreign language and students are of the same mother tongue (Bista, 2010). When students are not banned from employing their mother tongue, language learners, especially those with lower English language ability, are more likely to resort to their L1 to communicate with their addressee, including their classmates and their bilingual teacher. Furthermore, EFL students not only employ their first language to communicate their thoughts with their peers and teacher, but also use it to facilitate their process of learning L2 (Enama, 2016; Levine, 2003).

The students' alteration between two codes (languages) has been widely known as code-switching. In the realm of educational linguistics, code-switching has been examined through the lenses of sociolinguistics and pedagogy (Bista, 2010). While the former deals with how social factors result in students' alteration between the two (or more) languages at their disposal, the latter addresses the issues pertinent to why and how alterations occur due to pedagogical requirements. The present study deals chiefly with the pedagogical aspect of students' code-switching in an EFL context. Although several prior studies have investigated EFL learners' perceptions of code-switching and the forms and functions of their code-switching, the effect of speaking task difficulty on the quality and quantity of their code-switching is still an unexplored area of research. The present study aims to address this unexamined area by examining Iranian lower-intermediate EFL students.

Background
Use of L1 in EFL Classrooms

The use of students' L1 in second language learning classes has been judged differently. Some scholars have supported the English-only policy wherein it is recommended to employ the target language within the class time. The English-only policy is suggested as scholars believe that the use of students' native language can interfere with the system of the target language (Howatt, 1984). Furthermore, they find the English-only policy useful since learners' exposure to English language will be maximized if all utterances are provided in English (Ustunel, 2016). In addition, some teachers ban the use of students' first language as they find it prestigious to stick to the target language all the time (Butzkamm & Caldwell, 2009). This pressure, imposed by policy makers (Littlewood & Yu, 2011) and fellow teachers (Enama, 2016), can highly convince foreign language teachers to avoid students' first language in classes.

However, there are some scholars who welcome the use of students' L1 in EFL classes. Cook (2001), for example, argued that no systematic rationale has been suggested to justify the ban on the use of students' first language in foreign language classes. Cummins (2007), proposing the interdependency hypothesis, argues that students' first language can contribute to their acquisition of second language. Thus, to maximize the use of possible tools, the use of first language should not be prohibited in foreign language classes. Several scholars have supported the idea of Cummins by conducting empirical studies, and argued that the use of students' first language can lead to their positive cross-lingual transfer (Swain & Lapkin, 2000), phonological awareness (Durgunoğlu, 2002), and meta-linguistic knowledge (Hardin, 2020). The proponents of using students' first language in foreign language classes proposed a set of ideas which have been collected under the umbrella term of 'bilingual teaching' (Atkinson, 1993; Auerbach, 1993). The bilingual approach to teaching a foreign language presupposes this proposition that students' foreign language is built upon their first language knowledge and abilities. They believe that the starting point of learning a foreign language is students' first language (Enama, 2016; Hofweber et al., 2020; Narayan, 2019); thus, it should not be omitted from the foreign language learning story. Vygotsky (1962), too, argued that learning a foreign language is the extension of one's first language and ignoring it is not logical. Harbord (1992) has also stated that translation/transfer is an indispensable part of second language learning. Similarly, the bilingual approach to teaching finds code-switching an acceptable practice in foreign language teaching classes.

These two opposing views on code-switching in educational settings reflect the necessity of conducting more detailed studies on this topic to uncover the efficacy of code-switching in L2 learning contexts. To occupy a part of this niche, the present study has focused chiefly on the effect of task difficulty on learners' speaking performance and code-switching quantity and quality. In the following, a brief account of literature on these topics is provided.

Task Difficulty and Code-Switching

The investigation of the relationship between code-switching and task difficulty is an underexplored area of research. Only a few numbers of studies have investigated this issue. The analysis of the effect of task-difficulty on learners' code-switching quantity (the number) and quality (e.g., speech function, addressee of code-switching, purpose of code-switching) can reveal one of the reasons why L2 learners employ code-switching with different patterns on different occasions; however, all of the prior studies have focused on the quantity (the number) of learner code-switches. Chan (1996) argues that L2 learners are more likely to resort to their L1 when the task characteristics are more demanding. Myers (2008) investigated students' code-switching at a tertiary level in Canada. The mother tongue of the students was English and they wanted to become French teachers. The findings of this study indicated that when the difficulty of tasks was beyond teacher trainees' ability, they preferred to switch to their mother tongue to accomplish the tasks.

In another study, Qahfarokhi and Biria (2012) examined Iranian students' code-switching. The participants of their study included 30 intermediate and advanced students. The researchers examined the effect of both students' English language ability and task difficulty on the students' rate of code-switching. The results of their study indicated that both students' English language ability and task difficulty affected the rate of code-switching. To be more specific, the study found that more difficult tasks led the students to employ more code-switching to accomplish their tasks successfully. In a more recent study, Afroogh (2018) investigated L2 learners' use of code-switching in writing tasks. The results of his study indicated that more difficult writing tasks resulted in a higher number of code-switching items in an Iranian context.

Gap in the Literature and the Present Study

The present research project departs from prior studies as it fills several gaps in the literature of code-switching in educational settings. The review of the literature showed that prior studies investigating the effect of task difficulty on code-switching have focused merely on the quantity of learners' code-switching. They have only focused on the number of learner code-switching items in a single or across different conditions (Afroogh, 2018; Myers, 2008; Qahfarokhi & Biria, 2012). The absence of studies investigating the quality of learner code-switching can deprive us of significant information on how L2 learners switch to their mother tongue to fulfill different speech functions and language-related purposes, and select their addressee based on their needs. No prior study has investigated the effect of speaking task difficulty on both the quantity and quality of learners' code-switching to give us a comprehensive picture of learner code-switching under different tasks conditions. Furthermore, those studies that have investigated the quality of learners' code-switching in the literature have focused on the whole class interactions, and no study has examined the detailed dynamics of code-switching while performing speaking tasks under three task difficulty conditions.

The present study aims to contribute to the body of code-switching literature by filling this gap in the literature and examining the effects of speaking task difficulty on the learners' code-switching purposes, language function, and the addressee of their code-switching. Four research questions that guide the present study are as follows:

Research question one: *What is the effect of speaking task difficulty on lower-intermediate EFL learners' quantity of code-switching?*

Research question two: *What is the effect of speaking task difficulty on the language functions that lower-intermediate EFL learners employ in their code-switches?*

Research question three: *What is the effect of speaking task difficulty on lower-intermediate EFL learners' purpose of code-switching?*

Research question four: *What is the effect of speaking task difficulty on lower-intermediate EFL learners' addressee of code-switching?*

Method
Participants

The participants of this study included 61 lower intermediate English language learners. These participants, who were in four intact classes, were selected based on convenience sampling method. These learners were taking a general English course to reach the upper intermediate level in a private institute in Tehran. Two language teachers taught these classes and did their best to keep the procedures uniform in all classes. The students' age ranged between 18 and 35 years and both female (n = 36) and male (n = 25) students participated in this study. Although the institute had categorized these students as lower intermediate, the researchers gave the participants the Oxford Quick Placement Test to uncover their English language ability. Furthermore, the participants took an IELTS (International English Language Testing System) speaking section test. The students' mean score of the placement test was 33.54 (SD = 1.89), and their IELTS speaking score was 3.39 (SD = .41). The comparison of the students' performance at the beginning of the treatment indicated that the mean scores of students' English language proficiency and speaking ability were not significantly different across the four classes (F= .472, p >.05 and F = .97, p > .05). Furthermore, all the scores were distributed within one standard deviation from the mean scores and no outlier was pinpointed.

Instruments

Different instruments were employed to collect the required data. The following sections provide a brief account of these instruments.

Oxford Quick Placement Test. The Oxford Quick Placement Test (2001) was used to measure the participants' general level of English language proficiency. This test includes 60 multiple-choice items of vocabulary, collocation, and

grammar. This test is mainly employed for proficiency and placement purposes. The test has been validated in 20 countries by more than 6,000 students (Geranpayeh, 2003). This test was administered at the beginning of the study and the participants were given 45 minutes to complete the test.

IELTS Speaking Tasks. In order to examine the participants' speaking ability at the beginning of the study and run the analysis of learners' speaking performance in different conditions, four speaking tasks (Task Two) were taken from a book entitled as *"IELTS 14 General Training Student's Book with Answers with Audio (2019)",* which is published by Cambridge and provides its audience with authentic tests (Appendix D). Task Two was selected as it requires the test-takers to speak for at least one minute and could give the researchers enough amount of performance to draw conclusions about their speaking ability with a single task.

Speaking Tasks With Easy, Medium, and High Difficulty Levels. Following the oft-cited model provided by Skehan (1998), 12 tasks were developed by the researchers. Skehan (1998) provided a set of factors including the number of participants, abstractness of information, the extent to which a task is here-and-now or there-and-then, the retrieval or transformational nature of a task, and the extent to which the speakers are familiar with a topic. Based on Skehan's guidance of task difficulty, twelve tasks were developed (Appendix A).

To check the difficulty levels of the speaking tasks, the researchers sent the topics to 5 experienced English language teachers. All of them found the tasks acceptable, and one of them suggested that the word *overweight* could be difficult for the participants to understand and asked us to change it to the word *fat* (although there is a difference in their connotations). To examine the students' perceptions of the difficulty level of these three tasks, 25 students in two classes similar to those in the target sample gave scores between 1 and 20 to these three tasks. All the participants put these tasks into predicted levels. Except for one student in two cases, the other 24 students gave mean score of 3.45 (SD = .63) to the easy task, 11.3 (SD = .78) to the medium-difficulty task, and 14.4 (SD = .81) to the difficult task. These mean scores showed that the intermediate students' perceptions of the difficulty of the generated tasks were compatible with the expectations of the researcher.

Data Collection and Analysis Procedures

The participants' general English and speaking abilities were assessed before administrating the speaking tasks. The results ensured the researchers that all students were lower intermediate English language learners and they were homogenous in terms of their speaking ability. In the four participating classes, the students were not either encouraged or discouraged to use their first language when they felt necessary. The teachers permitted them to use Persian language whenever they wanted. However, the extended use of Persian language (more than 30 seconds) was interrupted by the teachers using a question or giving the turn to another student to stop the flow of Persian language use in the class.

The whole semester went on for 18 sessions, and the data were collected in 6 consecutive sessions. The participants were put in four-member groups randomly (one group with five members) by the researchers. In each session, two of the participants were asked to speak about a topic for their groupmates. Having finished the speaking task, the participants in each group had at most 10 minutes to talk further about the topic. As shown in Table 1, because of the time limitations in each session, the tasks of each difficulty level were administered in two consecutive sessions. Four different topics were generated to avoid giving the students in the second session more planning time, which could jeopardize the internal validity of the study. The participants were asked to record the last 30 minutes of each session, which was allocated to speaking practice. One person in each group had to send the sound track to the teacher before leaving the classroom.

Table 1
Data Collection Timetable

Session	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6
Difficulty	Easy 1	Easy 2	Medium 1	Medium 2	Difficult 1	Difficult 2
Group members	1 & 2	3 & 4	1 & 2	3 & 4	1 & 2	3 & 4

The data analysis included two main stages. In the first stage, the participants' speaking and general English abilities were analyzed. One of the researchers (the lead author) scored all of the collected samples using the scoring rubric provided by Cambridge IELTS; and a TEFL PhD holder, who is a formal examiner of IELTS in Iran, scored half of the speaking samples. The inter-rater reliability of the scoring procedure was as high as .92. The second stage dealt with the investigation of the quantity and quality of learners' code-switching. In order to categorize the students' code-switching items based on their language functions, the researchers employed a deductive approach. The code-switching items were categorized into three categories of word, phrase, and clause. In order to categorize the students' code-switching items based on their language functions, the researchers followed the categorization provided by Holmes (2001) and put the comments into directive, expressive, and referential categories. Although different categories are mentioned by well-known researchers (e.g., Halliday & Matthiessen, 2004), several scholars (Holmes, 2001; Jafarigohar et al., 2018; Stracke & Kumar, 2016) have argued that the three functions of directive (utterances attempting to get someone to do something), referential (utterances providing information), and expressive (utterances expressing the speaker's feelings) are the most relevant ones to educational settings. In order to categorize the code-switching purposes and the addressee of the code-switching items, an inductive approach was employed and the categories emerged out of the initial categorization stage. Based on the collected data, the researchers categorized the code-switching items into different categories at the primary and final stages. The primary stage was conducted by analyzing 10 percent of the instances by the researchers of this study and a TEFL PhD holder.

The inter-coder reliability value of this stage was .86. The discrepancies in the categorizations were discussed extensively to reach unanimous decisions. The final categorization stage was conducted on the rest of the collected data and the analysis of 50 percent of instances yielded an inter-coder reliability of .93.

Results
Effect of Speaking Task Difficulty on the Quantity of Code-Switching

To uncover the effect of task difficulty on lower-intermediate learners' quantity and quality of code-switching, the frequencies and types of their code-switching were determined. Table 2 provides the frequencies of their code-switching under different task difficulty conditions in one hour (the administration of four tasks plus the follow-up discussions).

Table 2
Frequencies of Code-switching under Different Difficulty Levels

Task difficulty	All clauses	Frequency of clauses with code-switching	Percentage	Mean	**SD**
Easy	6976	566	8.11	38.82	4.28
Medium	6474	628	9.72	41.37	1.48
Difficult	6237	713	11.43	47.85	2.41
Total	19687	1907	9.68	42.68	6.16

As provided in Table 2, the participants employed code-switching 1907 times under three task difficulty conditions. The mean score of their code-switching was 42.68 (SD = 6.16) in an hour. The findings also showed that the participants employed code-switching 566 (M = 38.82, SD = 4.28), 628 (M = 41.37, SD = 1.48), and 713 (M = 47.85, SD = 2.41) times under easy, medium, and difficult speaking task conditions, respectively. Totally, 9.68 percent of on-task clauses produced while performing the tasks were in Persian. The highest amount of L1 use was found in the difficult condition (11.43%) and the lowest belonged to the easy condition (8.11%). The participants employed their L1 while performing the tasks with medium difficulty in 9.72 percent of clauses. In order to examine the differences between the participants' frequencies of code-switching under different task difficulty conditions, several Chi-square tests were run.

Table 3
Chi-Square for the Participants' Code-switching under Different Task Difficulty Conditions

	Pearson Chi-square	df	Asymp. Sig. (2-sided)
Total	41.47	2	.000
Easy-Medium	10.45	1	.000
Medium-Difficult	10.09	1	.001
Easy-Difficult	41.47	1	.000

As indicated in Table 3, the frequencies of learners' code-switching under different conditions were significantly different, X^2 (2, N = 3) = 41.47, *p*= .000. The

findings also showed that the participants employed significantly more code-switching items under the difficult condition in comparison to the easy, X^2 (1, N = 2) = 41.47, *p* = .000, and medium, X^2 (1, N = 2) = 10.09, *p* = .001, conditions. The results also showed that the participants' switches to their L1 under the medium condition was significantly more than theirs under the easy condition, X^2(1, N = 2) = 10.45, *p* = .000.

Effect of Speaking Task Difficulty on the Quality of Code-Switching

Language Functions. The effect of task difficulty on language functions of learners' code-switching was also examined in this study. The learners' switches to their mother tongue were deductively categorized into expressive, referential, and directive functions, which are the three main language functions in educational settings (e.g., Jafarigohar, et al., 2018; Stracke & Kumar, 2016). Table 4 provides the frequencies of different language functions under different task difficulty conditions.

Table 4
Frequencies of Code-Switching Based on their Language Functions

	Expressive	Referential	Directive
Easy	53 (9.36%)	253 (44.69%)	260 (45.93%)
Medium	48 (7.64%)	241 (37.24%)	339 (54.12%)
Difficult	73 (10.28%)	213 (29.87%)	427 (59.88%)

The findings indicated that under the three conditions, the directive function, which included requests, questions, and orders, was the most frequent language function. Code-switching with expressive language function, which dealt with the expression of the speakers' feelings, was the least frequent language function. The examples of this language function was "/tʃɛ sæxtɛ/!" (How difficult it is!), "/tʃɛ bɑhɑl/!" (Cool!), and "/bɪː xɪɑl/" (No way!) to show their surprise after reading the topic. As indicated in Table 6, at most 10 percent of code-switching items were employed to show the feelings of the speakers. An interesting point is that under the difficult condition, the majority of expressive code-switching items (N = 52, 71.23%) were showing the participants' dissatisfaction with the difficulty of the task or their unfamiliarity with the topic. Code-switching items with referential language function, which are used to convey information (without asking for any information), decreased as the difficulty level increased. An example of this code-switching type was "My friend is /topolu:/" (Chubby). The speaker did not want anyone in the group to provide her with the equivalence of /topolu:/, but she wanted to convey the meaning in the flow of information she was providing. To have a better understanding of the significance of the difference between the frequencies across different task difficulty levels, a set of Chi-square tests were run (Table 5).

Table 5
Chi-Square for Different Language Functions under Different Task Difficulty Conditions

	Pearson Chi-square	df	Asymp. Sig. (2-sided)
Expressive-Total	2.76	2	.251
Referential -Total	30.40	2	.000
Referential -Easy-Medium	4.9	1	.027
Referential -Medium-Difficult	10.77	1	.001
Referential -Easy-Difficult	29.94	1	.000
Directive -Total	24.72	2	.000
Directive -Easy-Medium	7.07	1	.006
Directive -Medium-Difficult	4.75	1	.029
Directive -Easy-Difficult	24.7	1	.000

As shown in Table 5, the participants employed code-switching to fulfill different language functions. The results indicated that there was no significant difference between the frequencies of expressive language function across different task difficulty levels, X^2 (2, N = 3) = 2.76, p = .251. The comparison of code-switching items fulfilling the referential language function at various difficulty levels indicated that the difference was significant, X^2(2, N = 3) = 30.40, p = .000. The examination of different pairs showed that the number of referential items provided under the difficult condition was significantly lower than that of the medium, X^2(1, N = 2) = 10.77, p = .001, and easy levels, X^2 (1, N = 2) = 29.94, p = .000. Finally, the number of referential items under the easy condition was significantly more than that under the medium condition, X^2(1, N =2) = 4.9, p = .027. The analysis of directive items under different difficulty conditions indicated that the frequencies were significantly different, X^2 (2, N = 3) = 24.72, p = .000. The findings also showed that the learners' frequency of using directive code-switching at the difficult level was significantly higher than theirs at the medium, X^2 (1, N = 2) = 4.75, p = .029 and easy, X^2 (1, N = 2) = 24.70, p = .000 levels. Further, the number of directive items under the medium condition was significantly higher than that under the easy condition, X^2 (1, N = 2) = 7.07, p = .006.

Purposes of Learners' Code-Switching

Another aspect examined in the present study was the purposes of learners' code-switching while performing their speaking tasks. Here, the purposes of learner code-switching refer to the functions that the learners aimed to accomplish by using their first language. An inductive process of categorization was employed to sort out the purposes of lower-intermediate EFL learners' code-switching. Table 6, below, presents a report of the findings.

Table 6

Purposes of Learners' Code-switching while Performing Speaking tasks under three Task Difficulty Conditions

	Vocabulary	Syntactic structure	Content	Task rubric clarification	Turn-taking	Pronunciation
Easy	229 (40.45%)	110 (19.43%)	83 (14.66%)	74 (13.07%)	36 (6.36%)	34 (6.13%)
Medium	227 (36.14%)	133 (21.17%)	103 (16.40%)	69 (10.78%)	52 (8.28%)	44 (7.24%)
Difficult	173 (24.26%)	197 (27.62%)	181 (25.38%)	117 (17.40%)	29 (4.26%)	16 (2.24%)
Total	629 (32.98%)	440 (23.07%)	367 (19.24%)	260 (15.21%)	117 (6.84%)	94 (4.93%)

As shown in Table 6, six main functions were extracted for the participants' code-switching while performing speaking tasks. The most frequent function was vocabulary, which accounted for 32.98 percent of all code-switching items. The general pattern of this area showed that learners' vocabulary-related code-switching decreased as the task difficulty rose. On the other hand, the frequencies of the second and third most common types (i.e., syntactic structure and content) increased as the task difficulty rose. The participants' use of code-switching for clarifying the task rubric did not follow any specific pattern, but the difficult task difficulty level led to the highest level of rubric clarification code-switching items. In the two least common areas, namely turn-taking and pronunciation, the frequencies of code-switching under medium task difficulty condition were more than those under the other two conditions, and the difficult condition led to the lowest frequencies. However, to have a more accurate examination of the difference between the frequencies under different conditions, a set of chi-square tests were run.

The results of Chi-square tests (see Appendix B for the extended table of results) indicated that while the frequencies of vocabulary-related code-switching items at the two easy and medium levels were not significant, X^2 (1, N = 2) = 2.34, p = .126, the participants' number of switches to Persian at the difficult level was significantly more than those of easy levels X^2 (1, N = 2) = 38.40, p = .000 and medium, X^2 (1, N = 2) = 22.52, p = .000. Similarly, the frequencies of code-switching for syntactic purposes at the two levels of easy and medium were not significantly different, X^2 (1, N = 2) = .558, p = .455. However, unlike the vocabulary-related code-switching items, the participants' switches to Persian for syntactic purposes at the difficult level were significantly more than those at the easy levels X^2 (1, N = 2) = 11.61, p = .000, and medium, X^2(1, N = 2) = 7.49, p = .004 The learners' content-related code-switching at the easy and medium levels was significantly lower than that under the difficult condition, X^2 (1, N = 2) = 22.14, p = .000 and X^2 (1, N = 2) = 16.14, p = .000. The difference between the content-level code-switching frequencies under the easy and medium levels, however, was not significant, X^2 (1, N = 2) = .683, p = .409.

Regarding the code-switching items for clarifying the task rubric purposes, the findings indicated that the difference between the frequency of code-

switches under the easy level was not significantly different from the frequencies under the medium, X^2 (1, N = 2) = 1.23, p = .267) and difficult, X^2 (1, N = 2) = 2.76, p = .096 levels; however, the frequency of code-switching for rubric clarification at the difficult level was significantly higher than that of the medium level. Another function for code-switching was turn-taking. The participants' frequency of code-switching for turn-taking purposes under the easy condition was not significantly different from those under difficult, X^2(1, N = 2) = 3.43, p = .064) and medium, X^2 (1, N = 2) = 1.6, p = .205) conditions. The number of turn-taking items under the medium condition, however, was significantly higher than that under the difficult condition, X^2(1, N = 2) = 10.44, p = .001. The least frequent function was pronunciation, which was chiefly in the form of directive language function. The results indicated that the only non-significant pair was easy-medium conditions, X^2(1, N = 2) = .487, p = .485, and the difference between the frequency of this code-switching type under the difficult level was significantly lower than those of easy and medium, X^2 (1, N = 2) = 11.89, p = .000, conditions.

Addressee of Code-Switching Items

The last aspect of learners' code-switching while performing speaking tasks investigated in this study was the addressee of their code-switching. Based on the recordings, the researchers (including the teachers of these classes) identified the addressees of learners' code-switching. Since identifying the addressees of expressive and referential items was impossible because the data were in the form of audio, the present section is based on the learners' directive code-switching items. The findings are provided in Table 7.

Table 7
Addressee of Code-switching Items

	Self-directed	Peer(s)	Teacher	Peer(s)> Teacher	Teacher> Peer(s)
Easy	15 (5.8%)	181 (69.6%)	28 (10.8%)	20 (7.7%)	16 (6.2%)
Medium	29 (8.6 %)	156 (46.0%)	56 (16.5%)	61 (17.7%)	38 (11.2%)
Difficult	46 (10.8%)	222 (52.2%)	88 (20.6%)	33 (7.9%)	43 (10.1%)
Total	90 (8.77%)	559 (54.48%)	172 (16.76%)	114 (11.11%)	97 (9.45%)

As the data provided in Table 7 indicate, the participants employed code-switching to talk with their peers in the majority of cases (54.48%). In 8.77 percent of cases, the participants talked with themselves aloud, without addressing the others. They mainly employed this type to keep the flow of speech and buy time to find the right vocabulary or structure to use in their sentences. In some cases, they referred only to their teacher (16.76%). In some other cases, they talked with their peer(s) and then immediately with their teacher (11.11%). They usually did the latter when they did not get satisfactory responses from their peers or they seemed uncertain about the responses, so they resorted to their teachers to get the response. The last code-switching type was when the

participants first talked with their teacher and then conversed about the topic under question with their peers (9.45%). To uncover the significant differences in the frequencies of each type under the different task difficulty conditions, a set of Chi-square tests were run.

The findings (see Appendix C for the extended table of results) indicated that, although the frequency of self-directed code-switching under the medium condition was not significantly different from those under easy, X^2 (1, N = 2) = 1.677, *p* = .195) and difficult, X^2 (1, N = 2) = 1.05, *p* = .305) conditions, the frequency of self-directed items under difficult condition was significantly higher than that under the easy condition, X^2 (1, N = 2) = 5.00, *p* = .025. Regarding the peer-addressed code-switching items, the results indicated that the frequencies of peer-directed code-switching items at the easy level was significantly higher than those under medium, X^2 (1, N = 2) = 33.29, *p* = .000, and difficult, X^2 (1, N = 2) = 20.7, *p* = .000 conditions; however, the frequencies of peer-directed code-switching items under the medium and difficult conditions were not significant, X^2 (1, N = 2) = 2.69, *p* = .101. A converse pattern was observed in teacher-directed code-switching items where the participants' use of this type of code-switching at the easy level was significantly lower than those under difficult, X^2 (1, N = 2) = 11.149, *p* = .000) and medium, X^2(1, N = 2) = 4.03, *p* = .045) conditions. The difference between the frequencies of teacher-directed items under medium and difficult conditions was not significant, X^2 (1, N = 2) = 2.07, *p* = .150). The last code-switching type in terms of the addressee was when the participants first switched to Persian to ask a question from their teacher and then immediately talked with their peers to elaborate on the issue. Under the easy condition, the participants employed code-switching of this type significantly less than when they performed speaking tasks under difficult, X^2 (1, N = 2) = 3.15, *p* = .044, and medium, X^2(1, N = 2) = 4.58, *p* = .032, conditions; however, the difference between the frequencies under medium and difficult conditions was not significant, X^2 (1, N = 2) = .259, *p* = .611).

Discussion

The present study aimed to answer four research questions. The first one dealt with lower-intermediate learners' quantity of code-switching while performing speaking tasks. The findings of the current study showed that the learners employed their L1 in 9.68 percent of clauses. This finding is in line with those of previous studies (Bozorgian & Fallahpour, 2015; De la Campa & Nassaji, 2009; Rolin-Ianziti & Brownlie, 2002) where it was found that learners switched to their first language in less than 20 percent of the classroom interactions. While some prior researchers (e.g., Enama, 2016; Pachler & Field, 2001) have opposed the use of learners' L1 in EFL settings, the present study showed that no more than 10 percent of all clauses included learners' L1 use. The learners' code-switching, if controlled, seems to be worth implementing even if only a part of educational (Brooks & Donato, 1994; Hemmati & Hoomanfard, 2014; Kaushanskaya & Crespo, 2019; Rahayu & Margana, 2018), cognitive (Bosma & Blom, 2019; Cummins, 2007; Storch & Wigglesworth, 2003), emotional (Balosa,

2006; Peregoy & Boyle, 2013), and identity-related advantages of code-switching helps learners experience a better L2 educational condition, which may have positive knock-on effects on their second language learning process in the long run.

The findings also pointed out the significant difference between the frequencies of learners' code-switching under different speaking task conditions. The findings showed that the learners' number of code-switching stepped up as the difficulty of tasks increased. This finding, pertinent to lower-intermediate L2 learners, concords previous studies (Afroogh, 2018; Chan, 2006; Mahmoudikia et al., 2014; Myers, 2008; Qahfarokhi & Biria, 2012), which found the significant effect of task difficulty on learners' number of code-switching while accomplishing speaking and writing tasks in a second language. Prior studies (Bao & Du, 2015; Storch & Wigglesworth, 2003) have shown that the increase in the task difficulty can lead to learners' overload of working memory, which may increase the extent of learners' L1 use. Centeno-Corte, & Jime´nez (2004) argue that when learners confront a difficult task, "breakdowns in the thinking process" are probable and L2 learners are more likely to revert to their L1 to accomplish their tasks (p. 20).

This study investigated the effect of speaking task difficulty on L2 learners' quality of code-switching. This section of the study was, to the best of the researchers' knowledge, totally innovative as no prior study has investigated the purposes of learners' code-switching merely while performing speaking tasks. Prior studies (e.g., Bozorgian & Fallahpour, 2015; Ferguson, 2003; Üstünel & Seedhouse, 2005) focused on learners' code-switching items throughout a class time, which includes different sections, one of which is speaking practice; thus, comparing the findings of this study with those of prior studies seems not to be fruitful; however, the pertinent literature will be presented to elaborate on the findings.

One of the findings of this section showed that Iranian lower-intermediate EFL students employed code-switching to fulfill six main purposes (vocabulary, syntactic structure, content, rubric clarification, turn-taking, and pronunciation). The findings pointed out that the learners' focus on different purposes changed based on the difficulty of the tasks that they had to accomplish. For instance, the topic of the difficult tasks, which were about there-and then topics and were rather unknown to the participants, resulted in significantly more content-related code-switching items. The learners who were under pressure to speak as they were surrounded by their peers and the teacher found code-switching a suitable solution to find their way out of the content-related communicative breakdowns. The same pattern was found for syntactic structure and rubric clarification code-switching items. Under the difficult condition, the learners used their L1 to gain information from their peers and teachers more often to be able to complete the task; however, the significantly lower number of code-switching items under easy and medium conditions may show their lower level of difficulties in understanding the rubric and making sound syntactic structures. The use of L1 by learners for clarification purposes has been re-

ported by Bozorgian and Fallahpour (2015). In their study, which captured the whole class time, they found this function as the least frequent one. Similarly, in the present study, the findings showed that only code-switching items for pronunciation and turn-taking purposes had lower frequencies than clarification.

Further, a trade-off pattern was found in the learners' code-switching purposes. The learners' code-switching for vocabulary purposes decreased as the difficulty of tasks rose. When this finding is juxtaposed with the syntactic structure, rubric clarification, and content-related code-switching frequencies, it can be cautiously inferred that lower-intermediate learners prefer to save more chances for using their L1 to gain information on content-related and syntactic items and employ their existing lexical repertoire as much as they can to accomplish the task. On the other hand, when they perceived the task comprehensible and manageable in terms of content and syntactic structures, they focused more on lexical items. The same pattern was found for pronunciation-related code-switching items, which had the least proportional frequency under the difficult task condition, but was addressed more significantly under easy and medium conditions.

The examination of language functions employed to fulfill the pedagogical and pragmatic purposes by the participants showed that they employed the three main language functions (expressive, referential, and directive) while using their L1. The least frequent language function employed by the participants while switching to their L1 was expressive, which showed the speakers' feelings about the topic, the task, the peers' opinions, etc. Pavlenko (2008) argues that, when get excited, angry, or thrilled, multilinguals prefer to switch to their first language, even if it is in the form of a single word or phrase and then move back to their second language to continue communicating with their interlocutors. The same story was witnessed in our study as the participants mainly showed their feelings with single words or short phrases. This function was reported in prior studies (e.g., Bozorgian & Fallahpour, 2015; Ndayipfukamiye, 1994; Poplack, 2000); however, they brought it under interpersonal category. The reason might be the nature of their studies which included the whole class time, in which the whole class time consists of different activities, ranging from greeting and criticizing the teaching and practicing.

Another language function was referential, through which the participants provided a piece of information in their first language (and did not wait for the English equivalent). On these occasions, which were chiefly used for lexical items and turn-taking purposes, the participants employed a word or a phrase (and in rare cases clauses) in L1 among other words in English intentionally without any remarkable pause. In these situations, the learners seemed to have the full knowledge of content in L1, but could not find the equivalents in English. This code-switching type was more frequent in group discussions following the monologues, when the participants did not want to lose the turn and wanted to continue expressing their ideas about the topic under question. However, unlike the previous case, some of code-switching items were employed to seek for information in the form of question or request. A worth-

mentioning point about these two functions is that, by increasing the difficulty of tasks, the number of referential code-switching items dwindled, and more directive code-switching items were employed to fulfill learners' purposes. The reason might reside in the nature of the tasks with different difficulty levels. The linguistic and cognitive demands of the difficult tasks might have resulted in higher numbers of questions (and requests) as they did not know the required structures, lexical items, and content-related information to accomplish the tasks, but the participants seemed to have the required information in their L1, while having difficulty translating them into English. Maftoon and Amjadiparvar (2018) have stated that these two functions account for a significant part of learners' code-switching as the transfer of information from the speaker to the interlocutor is done through referential function; and demand for information in the forms of questions and requests takes place through directive code-switching items.

The current study also investigated the effect of speaking task difficulty on L2 learners' selection of their code-switching addressee. The findings indicated that the participants had five different choices (self-directed, peer-directed, teacher-directed, peer and then teacher, and teacher and then peer) while employing their L1 to obtain information at their disposal. An interesting finding of this study was the learners' self-directed code-switching, through which they loudly asked themselves a question while having switched to their L1. This type accounted for just under 10 percent of all directive code-switching items and was employed by the participants to buy some time to remember the items they believed (or played) they had already known. However, the majority of these self-directed questions were answered by a peer or a teacher. Almost half of all directive code-switching items were addressed toward peers; however, as the difficulty level of the tasks increased, the number of participants' referrals to their teacher for asking questions rose. In some cases, the participants asked their teacher questions and then discussed the same item in their groups to have a better understanding. In some other cases, the participants did not find the response of their peers satisfactory or did not trust the soundness of their peers' responses and asked the same questions from their teacher to get a reliable response. The issue of learners' mistrusting their peers is well-documented in the literature. Several prior studies (Hattie & Timperley, 2007; Hoomanfard et al., 2018; Narciss, 2008; Strijbos et al., 2010) have reported L2 learners' perceiving their teachers as significantly more reliable sources of knowledge. The increase in the number of teacher-directed switches to ask questions under the difficult task condition might be attributed to the learners' higher level of trust in their teachers' knowledge as a creditable source.

Conclusion

The present study may have contributed to the literature of code-switching in educational settings by providing a picture of how different speaking task difficulty levels can affect lower-intermediate learners' quantity and quality of code-switching. The findings of this study, which addressed an unexamined

area in the literature, showed the remarkable effect of speaking task difficulty level on learners' selection of their addressee when they decided to use their first language to ask a question, on their pedagogical and pragmatic purposes of code-switching, and thereupon language functions. Another finding of this study was the noticeably low amount of learners' code-switching while performing speaking tasks. If controlled in terms of quantity, the learners' use of their L1 to obtain knowledge, hold the floor, express their ideas, and clarify the task rubric (which can significantly affect the success of task completion) makes code-switching a precious pedagogical bootstrapping activity, which may result in learning and improved performance.

The findings of this study can have pedagogical implications for practitioners. Based on the findings of this study, EFL teachers should not deprive their students of a pedagogical tool, which can have educational, affective, and pragmatic benefits. If teachers and policy-makers are worried about the amount of L1 use, they can either set a limitation to each students' use of L1 in each session or control code-switching items by recording the group interactions. They can also employ the code-switching as a strong diagnostic tool, which can inform them about the learners' self-reported weaknesses. Different tasks with various characteristics can be employed to diagnose individualized L2 deficiencies in the first quarter of a semester and the teacher can have an L2 map of each learner to plan, monitor, and assess in the rest of sessions. These data can also be relayed to the teacher of the upcoming semester in the form of individualized portfolios.

The present study had suffered from some limitations, which can motivate future studies. The first one dealt with the scarcity of literature on the topic of the present study. While a bulk of studies have investigated the learners and teachers' perceptions of code-switching, code-switching under different speaking tasks in real classroom contexts was conducted in a few studies. This dearth in the number of similar studies has made the comparison of the results of the present research with those of prior studies impossible. Future studies can replicate the present study in other cultural and linguistic contexts to illuminate the possible differences. The participants of this study were lower-intermediate students in a private language institute context; other researchers can examine the participants with other English language ability levels and in other contexts (e.g., university). In addition, other researchers can use retrospective stimulated recall interviews to have a better understanding of L2 learners' switches to their L1. Although the content analysis of the interactions can reveal the purposes of code-switching items, stimulated recall interviews may result in more in-depth data for further analysis.

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Appendix A
Tasks With Easy, Medium and High Difficulty Levels

Difficulty level	Task
Easy	Find the similarities and differences in two pictures (1.5 min pre-task planning time)
	Tell a story based on six pictures (1.5 min pre-task planning time)
	Talk about your habits and hobbies on weekends (1.5 min pre-task planning time)
	Describe one of your teammates. Talk about his/her personality and appearance (1.5 min pre-task planning time)
Medium	Can you talk about tourist attractions in your city? (1.5 min pre-task planning time)
	What would you do if you lost your luggage at an airport (1.5 min pre-task planning time)
	What would you do if your neighbor threw a party the night before your important job interview? (1.5 min pre-task planning time)
	How often do you shop online? What are its advantages and disadvantages?
Difficult	The number of people who are risk of serious health problems for being fat is increasing. What is the reason for the growth in fat people in society? (1 min pre-task planning time)
	Some people do not agree with spending money on space projects. What is your opinion? (1 min pre-task planning time)
	Many people suffer from stressful lives. What are the causes of stress? How can we reduce our stress? (1 min pre-task planning time)
	What is your favorite communication technology? Why? (1 min pre-task planning time)

Appendix B
Chi-Square for Different Purposes Under Different Task Difficulty Conditions

	Pearson Chi-square	df	Asymp. Sig. (2-sided)
Vocabulary-Total	41.67	2	.000
Vocabulary -Easy-Medium	2.34	1	.126
Vocabulary -Medium-Difficult	22.52	1	.000
Vocabulary -Easy-Difficult	38.40	1	.000
Syntactic structure-Total	13.83	2	.001
Syntactic structure -Easy-Medium	.558	1	.455
Syntactic structure -Medium-Difficult	7.49	1	.004
Syntactic structure -Easy-Difficult	11.61	1	.000
Pronunciation- Total	18.15	2	.000
Pronunciation -Easy-Medium	.487	1	.485
Pronunciation -Medium-Difficult	17.71	1	.000
Pronunciation -Easy-Difficult	11.89	1	.000
Content-Total	28.20	2	.000
Content -Easy-Medium	.683	1	.409
Content -Medium-Difficult	16.14	1	.000
Content -Easy-Difficult	22.14	1	.000
Turn-taking-Total	10.36	2	.006
Turn-taking -Easy-Medium	1.60	1	.205
Turn-taking -Medium-Difficult	10.44	1	.001
Turn-taking -Easy-Difficult	5.43	1	.043
Task rubric clarification-Total	8.51	2	.014
Task rubric clarification -Easy-Medium	1.23	1	.267
Task rubric clarification -Medium-Difficult	8.21	1	.003
Task rubric clarification -Easy-Difficult	2.76	1	.096

Appendix C
Chi-Square for Different Addressees Under Different Task Difficulty Conditions

	Pearson Chi-square	df	Asymp. Sig. (2-sided)
Self-directed-Total	6.086	2	.042
Self-directed -Easy-Medium	1.67	1	.195
Self-directed -Medium-Difficult	1.05	1	.305
Self-directed -Easy-Difficult	5.00	1	.025
Peer-structure-Total	34.87	2	.000
Peer-Easy-Medium	33.29	1	.000
Peer -Medium-Difficult	2.69	1	.101
Peer -Easy-Difficult	20.7	1	.000
Teacher- Total	11.23	2	.004
Teacher -Easy-Medium	4.03	1	.045
Teacher -Medium-Difficult	2.07	1	.150
Teacher -Easy-Difficult	11.149	1	.000
Peer>Teacher-Total	23.09	2	.000
Peer>Teacher -Easy-Medium	12.73	1	.000
Peer>Teacher -Medium-Difficult	.01	1	.986
Peer>Teacher -Easy-Difficult	.000	1	970
Teacher>Peer-Total	4.71	2	.095
Teacher>Peer -Easy-Medium	4.58	1	.032
Teacher>Peer-Medium-Difficult	.259	1	.611
Teacher>Peer-Easy-Difficult	3.15	1	.044

Appendix D
Speaking Tasks
Describe a book that you have enjoyed reading because you had to think a lot.
You should say:
What this book was
Why you decided to read it
What reading this book made you think about
And explain why you enjoyed reading this book.

Describe something you like very much which you bought for your home
You should say
What you bought
When and where you bought it
Why you chose this particular thing
And explain why you liked it so much

Describe a difficult task that you succeeded in doing as a part of your work or studies.
You should say:
What task you did
Why this task was very difficult
How you worked on this task
And explain how you felt when you had successfully completed this task.

Describe a website you have bought something from
What the website is
What you bought from the website
How satisfied you were with what you bought
And explain what you liked and disliked about using this website.

Hercule Poirot and Criminal Psychology:
Crime and Detection in Selected Novels of Agatha Christie

Research Article

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Abstract

In this article, we explore the concept of criminal psychology and will explicate some of its major tenets in characterization of Hercule Poirot. Using an interdisciplinary approach, by close reading and drawing from crime and psychological theories (especially Behaviorism), we investigate the criminal profiling techniques in Agatha Christie's detective novels. Particularly, we adduce Ian Marsh's theory in introducing a set of explanations for criminal behavior and Westera et al.'s propositions in identifying features that make a detective's endeavors effective. We focus on the psychological procedures that exist in the process of mystery (making and solution), as well as on the detective's task to decodify riddles in light

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of the internal and external forces acting on him and how these affect his final decision. Then, we expand the notion of profiling as conducted by a detective and will illustrate some of the recurring biases that influence the final verdict about a case. Finally, we depict how the abovementioned proceedings are implemented in *Murder on the Orient Express* (1934), *The A.B.C Murders* (1936), and *Hickory Dickory Dock* (1955), three of Christie's best-selling novels with Hercule Poirot as their leading character. The character of Poirot, with his immaculate criminal profiling, bears witness to how Christie drew from and, at the same time, contributed to the concept and practice of criminal psychology in fiction.

Keywords: Criminal Psychology, Agatha Christie, Hercule Poirot, Behaviorism, *The A.B.C. Murders*

Introduction

Since its emergence, literature has focused, among other things, on human lives, souls and minds. Psychology took the latter responsibility with more gravity and seriousness since its inception. In recent centuries, particularly after Sigmund Freud, Literature and Psychology in many ways interlaced to become valuable fields of study with shared common concerns regarding human emotions, mindsets and fantasies. Frank Laurence Lucas' *Literature and Psychology* (1951), Ralph J. Hallman's *Psychology of Literature* (1961), Morton Kaplan's *Literature and Psychology* (1975), and Patrick White's *Literature through Psychology* (2019) are only a couple of scholarly books that address the mutual relationship between these two fields. What they all agree upon is that literature is an efficient realm for the manifestation of what psychology has to offer; more than any other field it brings about the mazes and puzzles of human thoughts and motives. One alluring and complicated branch of psychology that recurs in literary fiction is criminal psychology, which focuses on identifying criminals, the causes of criminality, the motives behind a crime, and a criminal's mind. The high rate of criminal behaviors and recidivism all over the world highlights the importance of studying criminal behavior and criminal psychology particularly on a wider ground like literature. In following sections, we methodically examine the responsive attitudes carried out by Hercule Poirot in his encounter with criminal behaviors and mysterious enigmas in Agatha Christie's novels.

Previous studies of/on Christie's novels have often dealt with social classes and contexts in which these stories are located. For example, Carron Stewart Fillingim (2007) in *Revelations from 'Cheesecake Manor': Agatha Christie, Detective Fiction, and Interwar England*, speaks of the significance of the highly English settings of Christie's stories that seem to recount "a tale of a highly defensive middle class determined to defend its privileges against the dual threats of the organized working class and socialism" (p. 43). Rene Cutforth (1976), in her book *Later than We Thought: A Portrait of the Thirties*, asserts "it is impossible to set the English scene at any period without becoming involved in the subject of class" (p. 25). Although both of these studies point out the "good and heroic"

aspect of Hercule Poirot, neither highlights the motives of the criminals and their recognition through the mind of Poirot as an expert in the mist.

Samantha Walton in *Guilty but Insane: Psychology, Law and Selfhood in Golden Age of Crime Fiction* (2013) explains psychological detection in law cases in the nineteenth and early twentieth century, which are famously known as the golden age of crime fiction. However, the lack of relevancy between criminal psychology as a distinct theory and distinguished literature in the works above calls for the emergence of a new approach; one that tends to both criminal psychology and its application. This article fills this gap by analyzing Christie's selected novel within these theoretical frames.

The contribution of the present article to the body of research available in the field of criminal psychology and crime fiction is its manifestation of the behavioral patterns of the criminals and the explanation of the personal traits common among effective detectives, which, building upon interdisciplinarity, uses close reading and discourse analysis of the crime and psychological theories to fulfill its task. It demonstrates that Christie's criminal fictions are more than mere tales of enigmatic journeys and exciting revelations. Her stories include psychological facts and take aid from them in the process of resolving the conflicts which, in many cases, are puzzling murder mysteries. In proving this claim, we will heavily use psychological evidences and link them to literature, a method that has not been applied as such to Christie's novels before.

Crime and Psychological Theories

Criminal psychology is interested in answering the question "why do crimes occur?" Criminals are often labeled as "psychos" (Westera et al., 2014, p. 70), which is much a generalized term used on common ground. In Hercule Poirot's fictional cases, criminals are often simply sick or crazy rather than being motivated by complicated psychological mental disorders. Ian Marsh (2006) draws a kind of Self/Other dichotomy and argues identifying a person as a criminal requires a distinguishing between "the innocent" and "the rest" (p. 57). Those who fit in "the rest" category often put "the innocent" in danger and, therefore, are to be avoided at all costs. Finding out more information about the traits that distinguish the two groups can provide us with a valuable foundation for the other steps in criminal psychology. Some of the most common traits found among the criminals and associated theories are as follows:

Intelligence

'Intelligence' is often conflated with intelligence quotient (IQ). Some research (e.g. Marsh, 2006) suggests that people with lower IQ are more likely to become criminals. Of course this does not mean that all criminals possess a low level of IQ; conversely, some criminals hold a very high IQ that consequently makes the discovery of their misdeeds super-difficult, because clever criminals often diminish all possible evidence that might blow their covers. Hercule Poirot's cas-

es are often fairly intelligent criminals, so that he has to strive beyond the ordinary to deal with them. The level of intelligence is directly related to the amount of time it takes for a criminal to commit a crime. The criminals with lower levels of intelligence are more likely to rush when it comes to committing the final deed. Their actions, therefore, are not very well thought out. An example of such criminals is Franklin Clarke in Christie's *The A.B.C Murders* (1936)*.* Clarke commits all of his crimes in alphabetical order, but when the circumstances go against his will, he is quick enough to commit an irrelevant murder to his usual pattern that finally gives him away. A low level of intelligence might be due to a lack of education or even to genetic disorders. Alexander Bonaparte Cust in *The A.B.C Murders* is a victim of both. He is a mentally ill person who gets excited over the slightest mention of money and, therefore, can be easily manipulated. A similar pattern is also visible in *Hickory Dickory Dock*. Nigel Champan is a skilled criminal who has committed multiple cases of robbery and murder. His prowess regarding manipulating people into believing that he does not mean all the bad things that he says and that this is a part of his fun nature allows him to manipulate Celia Austin into portraying behaviors that are not like her. Celia, manipulated by this highly intelligent criminal, does as he says and ends up emotionally hurt and eventually gets murdered due to Nigel's criminal scheme. Miss Valèrie Hobhouse, Nigel's accomplice, is just as smart and leads even Poirot himself to confusion and fascination regarding the lengths that she is able to go to in order to have their plans carried out accordingly. The case with *Murder on the Orient Express,* however, is different. In this story, a sense of collective intelligence is at stake. The crime committed is the outcome of multiple people coming together and producing a bigger picture, which is the murder of Ratchett. It is safe to say, however, that this collective intelligence ends up working to the favor of Armstrong family as they succeed in murdering Ratchett and making Hercule Poirot believe that he could consider them as an exception and not turn them in to the police. Sure, as Marsh highlights, "It's almost impossible to separate the link between intelligence and propensity for criminal behavior from environmental and even possible heredity factors" (p. 58). Intelligence is, however, an influential factor for criminal behavior and does not cause crimes deliberately on its own.

Impulsivity

Another common personality trait among criminals is impulsivity. This factor refers to the criminal acting almost fully based on the instincts with absolutely no consideration for its consequences. Criminals with high levels of impulsive intentions are more prone to be diagnosed with psychological disorders. An example of an impulsive criminal is Nigel Chapman in Christie's *Hickory Dickory Dock.* In this novel, Nigel kills his own mother at such an early age with absolutely no sense of regret or hesitation. Later on, he commits a series of crimes that the impulsive nature of each is too obvious to go unnoticed. Such criminals possess little self-control and, therefore, are quick to both commit a crime and later confess it. Lack of self-control leads the criminal to seek for immediate

satisfaction of his/her needs. It is important to note that different types of impulsivity function differently. As March classifies, "Functional impulsivity" often leads to the occurrence of a good and useful deed, whereas "dysfunctional impulsivity" leads to destruction (p. 61). Dysfunctional impulsivity is also visible in *The A.B.C Murders*. The killer of the case, Franklin Clarke, mistakenly and out of sheer impulsivity, commits a murder, the record of which does not correspond with the alphabetical order that he has initially aimed to create. This causes the destruction of his master plan in the end as Poirot succeeds in seeing right through him.

Locus of Control

Locus of control, as an internal mechanism, works in a way that the criminal imagines conditions are immensely under his/her control (Marsh, 2006). Internal locus of control often convinces the criminal that there are different interpretations and explanations for the events that take place. Yet, people with an external locus of control often believe that the occurrence of all or at least some of the events are directly dependent on some forces beyond their own will or power. This group strongly believes in and accepts the idea that good or bad luck will determine the outcomes of their deeds. Locus of control can also be seen as a catalyst for people who are prone to becoming criminals or display criminal behavior in one way or another. The best example of how locus of control might manifest itself in criminal novels is shown through Alexander Bonaparte Cust in *The ABC Murders.* Cust becomes wrongly accused of a sequence of crimes that occurred under his name but the he himself did not commit. This person is not a criminal but is prone to becoming associated with one since he accepted to play the fake criminal in the first place. His external locus of control leads him to deny all accusations against him as he keeps repeating "I was unlucky" and "everything is against me" (Christie, 1955, p. 133). He refuses to believe that what he is facing is the result of becoming a slave to his temptations and instead dumps all the weight on the forces beyond his will and power.

It is worth mentioning that none of these common traits can be responsible for a crime single-handedly. It is the interplay of these different conditions that finally results in criminality. In *Hickory Dickory Dock*, Mrs Christina Nicoletic, the secretive owner of the dormitory, is aware of the criminal deeds going on around her property. However, she refrains from intervening and helping the police, so Poirot must unravel the mysteries surrounding the criminal activities around her. In a way, she chooses to play the role of the accomplice as an attempt to save her property's reputation from getting besmirched. Upon getting called out for her misdeeds, her belief in an external locus of control causes her to deny her involvement in everything that she has been a part of.

Psychodynamic Theory

This theory is probably Sigmund Freud's most important contribution to psychology. Early Freudian studies of crime "highlight the irrational, infantile, and unconscious dynamics of crime" (Fitzpatrick, 1976, p.70). Therefore, the central

element of this theory is the idea of unconscious. According to Freud, much of the action that we undertake is under the influence of the unconscious to which we have no direct access. Agatha Christie made use of Freud's ideas in her works through the psychological profiling. Alexander Bonaparte Cust in *The ABC Murders* is suffering from the Oedipal Complex that failed to resolve back in his childhood. He also suffers from several mental disorders as the result of the humiliation and degradation that were imposed on him back in his childhood. The strong presence of unconscious and childhood in Cust's case strongly calls upon the psychodynamic theory. Nigel Chapman and Valerie Hobhouse in *Hickory Dickory Dock* have not had a healthy bringing up and their relationships with their mothers are incredibly disturbing. Nigel ends up murdering his mother and Valerie lives with the burden that her mom is an alcoholic who does not care for her the way a mother normally does. The undeniable traces of these disturbances in their unconscious creates two skilled criminals out of them. The unconscious need to avenge the murder of a three-year-old child becomes the motivation for the team of criminals in *Murder on the Orient Express*. They unconsciously (and at times consciously) feel the need to seek answers for the brutal murder and the pain that came along with it. This is why they plan out Ratchett's murder and succeed in doing it.

Behaviorism

Behaviorism grew out of experiments that suggest that Freud's beliefs about the unconscious are scientifically unprovable. Instead, Behaviorism pays close attention to "observable behaviors" (Marsh, 2006, p. 65). Behaviorism states that behaviors could be the result of education or interactions that take place consciously. As Marsh asserts, "depending on what and how we learn, we either may or may not learn to behave in either criminal or non-criminal ways" (p. 65). Behaviors could be learnt through interactions with the world. An example of learnt criminal behavior can be seen in *Hickory Dickory Dock,* where Valerie Hobhouse shows symptoms of criminal behavior through participating in homicide and stealing objects as a result of close interaction with the experienced criminal that is Nigel Chapman. The murder of Ratchett in *Murder on the Orient Express* could also be another case of learnt criminal behavior. The team of criminals had previously witnessed Ratchett committing a horrendous murder and getting away with it, so they try to use their chance at recreating a similar experience with a different plot and victim. In a way, Ratchett paves the way for his own demise.

Cognitive Theory

"Cognitive theory" as Ian Marsh (2006) puts it, "is concerned with internal mental processes. It describes how criminals' thinking patterns are mostly characterized by a lack of empathy, poor perspective of time, perception of themselves as victims and general correctness in their beliefs" (p. 75). Based on these notions, criminals often perceive their acts flawlessly carried out and fail

to take into account the consequences of their actions. This theory manifests itself in several criminals that Agatha Christie introduced in her novels. Lack of empathy portrays itself in the crimes committed by Ratchette in *Murder on the Orient Express.* He holds the little girl of the Armstrong household hostage for days and demands money. He gets all the money that he demanded for but still proceeds to murder the little girl. In another example, having a poor perspective of time is the major flaw of Franklin Clarke in *The ABC Murders.* His weak sense of timing eventually makes him delivered to Hercule Poirot.

A very famous trick that often allows criminals to get away with what they have done is insisting on perceiving themselves as the victims. Nigel Chapman in *Hickory Dickory Dock* often takes the blame without anyone directing it to him. His swiftness in accepting the responsibility for the things that might have nothing to do with him catches Poirot's sharp eyes and later, by relying to the cognitive theory, Poirot announces that Chapman is the real criminal. Common beliefs among criminals often originate from their childhood and their relationship with their parents. Nigel has an uneasy relationship with his parents. This leads him to first murder his own mother and then abandon his father and lie about him in all social spheres. Such criminals grow up and enter the society without developing a sufficient post-conventional morality. The prerequisite of post-conventional morality is pre-conventional morality that should be developed during the childhood. Criminal behavior, therefore, is considered as a more or less rational choice made by the criminals.

One significant branch of cognitive theory is "routine activity theory." (Marsh, 2006, p.78). This theory states that for a crime to reach its final goal, the interaction of several items is necessary. There should be a motivated criminal, a pre-examined and detected target, and the absence of a potential savior for the target. Through the interaction of these three items, a crime successfully occurs. Routine activity theory can be observed in the criminal procedures that exist in Christie's novels. In *The ABC Murders*, Franklin Clarke disguises himself as a poor man who sells socks. His true intention, however, is to gain information about his soon-to-become victims. He makes sure to surprise the target with his/her last goodbye in the most secluded places when he/she least expects it, and there is no savior nearby.

The Detective and His Role

The aim of this section is to draw attention to the importance of detectives' job and the significance of what they do and how they do it. Acquiring a good understanding of what detectives do requires having a list of standards about what makes an effective detective. This section provides a list of characteristics and skills required to train an effective detective in details. In fiction, a detective's investigative abilities are often closely connected with their ability to psychoanalyze criminals, so we can say that a detective can be a kind of psychoanalyst at the same time. A comparison between the fictional detective and the interrogative policeman can make this clear. "Detectives are entrusted with a

highly serious job" (Westera et al., 2014, p. 4). The most basic expectation of a detective is for them to be able to distinguish "the innocent" from "the rest" correctly (p. 4). No innocent should be wrongly accused and no criminal should escape justice. A detective's ability to do this correctly directly influences people's perception of the justice system and the level of satisfaction they have with it. The higher the profile and more serious the crime is, the heavier the responsibility of the detectives to do this properly. In such cases, the final outcome of the investigation process defines and partly changes the public belief and perception of the justice system. "Identifying these matters has profound implications for how the detective's role is conceptualized" (p. 6). The job of the detective can be perceived in three different ways: It can be seen as an art, a craft, or as a branch of science.

Considering what the detective does as an art means strongly believing in the detective's intuition and instinct. This signifies that training a person to become a detective or providing necessary and related education has very little effect on the process of making a good detective. Seeing the work of the detective as a craft provides a more traditional view that states the more experienced the detective gets, the more s/he develops a "sense of craftsmanship" (Westera et al., 2014, p. 5-6). The ideal form of craftsmanship includes being able to put all matters in context and perfectly communicating with a variety of people. Stephen Tong and Benjamin Bowling (2006) rightfully assert that "The scientific approach to detective work points to a potentially evolving 'professional' detective significantly different from the detectives in the past" (p. 326). This approach has led to the creation of criminal psychology as a scientific branch that analyzes the criminal minds. This approach is also responsible for the creation of forensic psychology which "is the application of clinical specialties to the legal arena" (American Psychological Association, 2013). Perhaps the most important contribution of scientific approach is the creation and introduction of criminal profiling that provides the detectives with the best framework to analyze criminal behavior. The scientific approach allows utilizing evidence-based information in a trusted and creditable way. The common belief about detectives is that they are innately educated and always ready to catch some criminals. The truth is that detectives devote the majority of their time and energy to psychological profiling, filling in the blank spaces of the puzzle of evidences and communicating with suspects and people who are overall involved in the case. After all these steps take place, criminal catching occurs. The detective needs a set of tools to acquire enough information to decide about a particular case. These tools or skills are empirically gathered information, great communication skills, interviewing skills, crime-scene management skills, the skill of being able to distinguish between useful and irrelevant information and the skill of investigating and deciding as unbiased as possible. To close a case successfully, all of these skills should work harmoniously, which can be divided into four parts: task, information, people, and communication skills.

Managing Tasks Skills

The detective should be able to put the available evidence and information into effect and control the situation. Having this skill goes hand in hand with how calm and collected the detective in charge is. In fiction, Hercule Poirot is one of the best examples. He is never in a rush, is always calm, and never fails to find stability. In *The ABC Murders*, Hastings, Poirot's close friend internally admires how calm he is and how neat and organized his files are. When Hastings upon receiving the fourth letter from the criminal barges into Poirot's closet and dumps all he sees in a suitcase, he is met with a pretty savage reaction from Poirot who thinks they cannot fight against the normalcy in life and have to wait until the train arrives instead of hurrying uselessly. His collectedness is also visible in how he manages to gather the necessary information of the murder case in *Murder on the Orient Express*. His distressed friend, Mr. Bouc, hurries fruitlessly while Poirot takes his precious time going through every passenger's ticket and passport in order to gain more insight into what might have caused the murder of Ratchett. As expected, he spots the nuances of the murder plan in the way the personal information in passports have been altered and manages to grasp the thorough scheme by the end of the story. Poirot's calmness is also presented through its stark opposition to Ms. Lemon's state of despair in *Hickory Dickory Dock*. Poirot constantly tries to assure her that progressing as he has planned would ultimately reward them with victory and that there is no reason for worrying too much. In the end, Poirot succeeds and once again proves that calmness and enough thinking are the key to the revelation of criminals' motives.

Managing Information Skills

Detectives should constantly look for clues and get all the help they can to solve the mysteries of the cases. It is important to note that not all of the clues are of the same importance. Some of the clues are merely out there just to mislead the detective and affect the final outcome of the investigation process. Prioritizing the information elicited from the clues is the job of the detective. In *Hickory Dickory Dock*, Poirot himself instigates a journey in order to gain more insight into the seemingly random sequence of lost objects including "evening shoe (one of a new pair), bracelet (costume jewelry), diamond ring (found in plate of soup), powder compact, lipstick, stethoscope, earrings, cigarette lighter, old flannel trousers, electric light bulbs, box of chocolates, silk scarf (found cut to pieces), rucksack (ditto), boracie powder, bath salts, and cookery book" (Christie, 1955, p. 4). He purchases one rucksack identical to the one found as evidence and by rampaging through its compartments finds out that this rucksack is made for smuggling purposes. In this way, he discovers that there are more layers to the case.

In *Murder on the Orient Express*, Poirot discovers a plethora of clues; however, he comes to realize that not all of them contribute to the resolving of the enigma. The embroidered handkerchief is one of these "clues" that might have

distracted Poirot's attention to a wrong idea, but Poirot doubts the easiness with which he has found this clue and as a result does not build his theories on the basis of it. His appropriate prioritization of the available clues and evidences rewards him and Mr. Bouc with the discovery of the actual murderers.

Alexander Bonaparte Cust in *The A.B.C Murders* serves as the red herring while Franklin Clarke is the mastermind behind the alphabetical murders. Poirot's skepticism towards the lack of barriers that exists between the authorities and the criminal leads him to explore the theory that Alexander Bonaparte Cust is just a scapegoat for Clarke to get away with the murders. He does not take the evidence at the face value and analyzes and reanalyzes it until it makes absolute sense. Ultimately, he succeeds in recognizing the true criminal and leaves Clarke wondering about how he might have blown his cover having planned out everything accordingly.

Dealing With the People Skills

This set of skills is closely related to the detective's social skills. The detective should be able to adjust his or her moods and social behavior in accordance to the type of people that he or she is dealing with. This set of skills is a prerequisite for communication skills (Westera et al., 2014, p. 10). Throughout all of the novels of Agatha Christie that features Hercule Poirot as the chief detective, we can see how his tone and manners change interacting from one person to the other. Sometimes, he randomly makes up some fake piece of information just to see how his suspect responds. He uses this method to test the honesty of his suspect. Often they comment on this fake information as if they were present when that particular thing occurred. In *The ABC Murders,* Poirot describes an imaginary murderer to Mrs. Auscher's neighbor and asks her to give him all the information she has of this person in exchange for five pounds. The neighbor starts describing this imaginary person with passion and thus gets omitted from the circle of the witnesses that Poirot can trust. Other times, he speaks completely to the point and even explains the already carried out procedures that are supposed to be confidential. He does this in *The ABC Murders* when Megan Barnard does not seem to trust Poirot with accurate information about her deceased sister. Only after Poirot explains the alphabetical nature of the murders to her does she become fully invested in the process. He knows who he is dealing with and adjusts himself to their moods to get the best information.

Effective Communication Skill

This set of skills more than anything else requires the detective to be as approachable as possible. This is the most important and the most critical set of skills. The detectives should be able to connect and communicate with people from all walks of the society. Poirot makes sure to take the age and intelligence level of his audience into consideration. The best example of how Poirot's

communication skills operate can be seen in *Murder on the Orient Express.* This story revolves around a murder that involves over ten different people. Each one of these people has their own unique story considering their lives and points of view regarding the murder. Poirot converses with all of them and tries to build enough trust for them to trust him with whatever information that they have. His way of talking differs from the men to the women, the elderly to the youth, the British to the foreigner, and the extrovert to the introvert.

It is important to note that the job of the detective is multidimensional. A detective might have to appear as an expert in some other fields that are more or less related to his job, fields like psychology. There is no doubt that a fictional detective should be an expert when it comes to psychology. It is only natural for the detective to appear as a psychoanalyst since the investigation process is highly cognitively demanding. The criminal responsible for a crime is never fully unknown. There is always a small clue left behind due to the carelessness of the criminal or his attempt to challenge the authorities through a game of hide and sick. Psychology can never work to its fullest if the criminal is fully unknown. Poirot engages himself in a psychoanalytical process each time he tries to trace a clue back to its origin. Through this indulgence, he is differentiated from the normal people who just sit back and watch aimlessly. Speaking of the roles that a detective can play, the power relation in the police versus detective set is also worthy of mentioning. In Agatha Christie's novels, these two authorities mostly function on the same page. In crime fiction, the police are almost always marginalized and given a minor role compared to the detective. The police are often criticized for lacking depth of imagination and cognitive thinking. They are usually the ones who get fooled by looking at a set of unreliable information. Inspector Crome and Hastings in *The ABC Murders* are great examples of inferiority in relation to Poirot who is given an almost supernatural importance. He is the one who is always available to save the day and through his manners and professionalism, the readers perceive the police involved in the case as naïve and a little dumb.

Clues in Criminal Cases

Clues are the starting points in the journey towards discovering the motives and eventually resolving the conflicts of a case. To speak more about clues, it is essential to first see what clue literally means. According to Oxford Online English Dictionary, a clue is "a ball of thread, employed to guide anyone in 'threading' his way into or out of a labyrinth or maze; hence, in many more or less figurative applications, a fact, circumstance of principle which, being taken hold of and followed up, leads through a maze, perplexity, difficulty, intricate investigation." This definition can be applied to Poirot's investigations as well. Poirot often starts his investigations with an invisible but real murderer who has committed a crime or a set of crimes in a way that neither the readers nor himself have any accurate knowledge of. The process of investigation that takes place throughout the story works in favor of uncovering the motives behind the crimes. In Christie's novels, usually the process of finding clues and consequent-

ly investigation begins with the discovery of a corpse. In order to find the clues, the plot of the story that includes the details of the actions of Poirot and his allies and the investigation process should develop together. In *Hickory Dickory Dock* and *Murder on the Orient Express,* the two processes take place simultaneously, whereas in *The ABC Murders,* both of the processes are subverted. Crimes keep occurring one after the other without leaving much time for the previous one to resolve. Poirot's clues are often in the shape of "finger prints, foot prints" (Westera et al., 2014, p. 9) and an overheard conversation long enough to create suspense and short enough not to provide any valuable and trustworthy information. A problem with absolute reliance on clues is that, when a state of cluelessness is faced, nothing can be done to get out of it. Cluelessness happens when the criminal is experienced and intelligent. In *Curtain: Poirot's Last Case,* cluelessness is the result of the criminal role being fitting enough for almost everyone. Clues require a smart detective such as Poirot to find and interpret them in a way that they serve as "links between past and present" (p. 17).

Finally, we approach some of these theories in *Hickory Dickory Dock*, in which the focus is on a set of robberies that leads to murders in a student hostel located on the Hickory Street. Mrs. Hubbard, who is assigned to administer the students and the hostel by Mrs. Nicoltis, lets Hercule Poirot know about all of the strange things that have been happening for quite a while. Poirot accepts this challenge of the case, and through recurring visit sessions to the hostel and communicating with the students that reside there, comes to a conclusion about the causes of all the chaos that had put Mrs. Hubbard and her sister, Mrs. Lemon, in great distress. Digging deep and beyond the surface of the story, this section aims to analyze certain parts of this novel through the lens of criminal psychology as conducted and carried out by the epitome of fictional detectives, Hercule Poirot.

To start, we have to see how Poirot meets the standards of an effective detective in the context of this novel. The novel begins with a description of a situation in which Poirot is seemingly shocked by the fact that his normally mistake-free semi-robot secretary, Mrs. Lemon, has typed a letter remote from its usual flawlessness. Upon observing this inconvenience, he calmly asks for the reasons responsible for her lack of concentration. By her response, he becomes aware of the fact that Mrs. Lemon is upset about her sister, who is also deeply upset. He expresses his surprise by asking a rhetorical question that is "your sister?" (Christie, 1955. p. 4). This shows that he is very curious in nature and realizes the smallest changes, both of which are the characteristics of an effective detective. Later in an internal monologue, he criticizes Mrs. Lemon's "heel of Achilles" (p. 5), which he perceives as her lack of imagination. Poirot himself is rich in this particular department, which distinguishes him from other people around him. After listening to Mrs. Lemon narrate Mrs. Hubbard's story, he accepts the case only because he feels motivated and never wants to see Mrs. Lemon making the same mistakes ever again. This motivation that pushes him to think and take action is another important characteristic of an effective detective. Later, he arranges a meeting session with Mrs. Hubbard, and before her arrival, makes sure that everything is prepared and symmetrical. This external

sensitivity over appearance signifies that his mind is just as organized and clear-cut, which is a positive point for an effective fictional detective. He sets off to visit the hostel and the students, and upon his first encounter with them, he finds out a variety of new information. He is sharp enough to realize that, at the mentioning of the name of Colin McNabb, Miss Celia Austin turns a shade of crimson indicating her emotional attachment to him. He finds it suitable to narrate some of his great experiences in the form of well-developed stories to the students. He does so "in a light and amusing fashion" since "the sound of his voice was always pleasant to him" (p. 33). This confidence is also a vital factor required for an effective detective. The murder of Miss Celia Austin finally takes place and Poirot is bombarded with an avalanche of new information given to him by the police inspector. His first assumption about the case is that Miss Valerie Hobhouse and Mr. Nigel Chapman are in fact very suspicious. Later in the story, this assumption proves to be right, which shows that he is as intelligent as an effective detective should be. He makes sure to double-check all of his observations and finds the first functional clue when he pays attention to how the soup is served in the hostel the night before the murder. This sharpness of the eyes allows him to recognize Valerie Hobhouse as the thief of the diamond ring.

Now we go back to the beginning of the story and trace some of the skills put to use by Poirot. Upon observing the mistakes that Mrs. Lemon had made, Poirot does not get mad at all. This is an example of 'dealing with the people' skills explained earlier. After hearing all that has been going down in the hostel, he responds with "the parsley sinking into the butter on a hot day" (p. 16). This is a reference to Sherlock Holmes, and Poirot proves to be skilled enough in managing the tasks by connecting his current case to his pre-existing knowledge. His statement "We try to prevent murders, not wait until they have been committed" (p. 44) shows his skills in controlling the situation. Later, Colin McNabb straight up attacks Poirot and his "traditional ways" (p. 50) and tries to humiliate him with his modern, psychology-based ones. Despite the hash tone of Colin, Poirot seems calm and collected and even interested in absorbing the information brought about by this new point of view. Poirot shows that he has excelled in communication and dealing with the people. Communication skills are the most important skills, and Poirot states "all murderers I have ever come across enjoyed talking. In my opinion the strong silent man seldom commits a crime" (p. 54). This is a good example of how communication skills can destroy the barriers between what the criminal wants to hide and what he puts out on display in the vitrine. He tries to approach the case with an open mind by connecting it to his pre-existing knowledge. He compares the current situation that he is involved in to the "three honored lady game" (p. 78) and opens up new doors to deeper perception of the situation.

Explaining some of the examples and causes of criminal behavior in the novel leads to a better understanding of the function of the clues. When one of the students observes that her notes are soaked in green ink, Nigel Chapman immediately accepts the blame by saying "bad Nigel spilt the ink" (Christie, 1955, p. 42). Playing the role of the victim when in reality he really is the crimi-

nal is a classic criminal behavior. After the murder occurs, Nigel is interviewed by Poirot and the Police inspector, during which he is reluctant to give any sort of information about how he supplied three different types of poisons. This shows that Nigel as a professional criminal is intelligent enough not to give away information that could be used against him. The factor of the intelligence of the criminal is also portrayed through the actions of Valerie Hobhouse. She is the one who teaches Celia Austin how to commit crimes in a way that strikes Colin as amusing and interesting. At the end of the story, Sir Arthur Stanley's letter reveals that Nigel has always been a chaotic child. This exhibits the role of the much complicated childhood that Nigel went through in his character development as an individual.

It is now time for Poirot to find new clues and analyze the already existing ones. His first attempt to find some clues is by asking Mrs. Hubburd to describe the hostel and the types of students to him. After finding the lost pair of shoes in the lost properties office of Hickory Street, he traces it back to its origin and provides himself with the first trustworthy clue. Later, Mrs. Hubbard prepares a list of the stolen objects in a chronological order that serves as a perfect clue for Poirot. Among the items on the list, the most important and eye-opening ones such as Valerie's and Nigel's illegal passports are the hardest to find let alone traced. Poirot approaches this difficulty with an open mind and reminds inspector Sharpe that a clue as important as an illegal passport cannot possibly be found during the first time searching the hostel and the properties of all of the students. Poirot also relies on empirical experiments to get a clearer view of the vague and blurred clues. The ripped apart rucksack is a very important clue and to see exactly why, Poirot purchases one himself and rips it apart.

One of the most prominent aspects of criminal cases is the almost invisible rivalry that more or less exhibits itself in the behavior of the police versus the detective. The manifestation of police power in this story is portrayed through the character of inspector Sharpe. The first implication of this rivalry is shown when Mrs. Hubbard and Mrs. Nicoltis agree on getting help from Poirot, but refuse letting the police take the responsibility. This primacy that is given to the role of Poirot is later justified to some extent. When the police officer finally gets a wide view of the whole situation, his first reaction to the murder is that of "a silly kid who's been pinching a few things here and there" (p. 52). To Poirot, however, it is much more complex. The police insist on limiting the case to a suspicious suicide note written out of hopeless romanticism and a good example of kleptomania, but even Mrs. Hubbard is hesitant to fall for this lameness. Inspector Sharpe wants to close the case as soon as possible to "maintain prestige" of the police, whereas Poirot only accepted the case because he was motivated by and interested in it. The difference between inspector Sharpe and Poirot also manifests itself in the way they interview the suspects. Inspector Sharpe acts harshly towards the suspects as soon as he feels the shift of power and his authority being undermined, whereas Poirot welcomes different ideas and tries to get the most information out of them. It also seems like the people involved in the case trust Poirot as the detective figure more than inspector

Sharpe. Celia confesses to his wrong deeds in the presence of Poirot and feels threatened by the police.

Fictional detectives often possess very sharp eyes and senses and, therefore, are distinguished from normal people. At one point, Poirot asks Mrs. Hubbard about the love interests that exist among the students, and Mrs. Hubbard answers that she has never detected any. Poirot later proves Mrs. Hubbard wrong by analyzing the unseen links and detecting all sorts of romantic feelings among the students.

The last part to be analyzed is about psychological profiling of the criminals and the biases that affect the outcomes of profiling and consequently the final decision. The process of profiling begins with Poirot asking Mrs. Hubbard a set of questions about "why such a haphazard of collection of things" (Christie, 1955, p. 11) has been stolen. Later on, process of profiling goes beyond paying attention to a set of stolen objects and psychological profiling of the people involved in the case begins. During the first encounter with Colin McNabb, Poirot recognizes him to be the type blinded by love and emotions that only looks out for the complexes that exist in others. In the case of Celia Austin, everyone considers her to be a poor girl who did not know what she was doing, but Poirot believes that Celia was clever enough to know the way to Colin's heart. After all, Poirot comes to believe that all of the people involved in the case could be the potential murderer. In his opinion, Valerie Hobhouse is smart, Nigel Chapman is childish in behavior, Genevieve is greedy for money and would risk anything for it, Patricia Lane is the maternal type and "the maternal types are always ruthless" (p. 64), Sally Finch knows exactly how to act, Jean Tomlinson is too good to fool anybody and Elizabeth Johnston is the most intelligent person among all of them since she considers her brain to be more important than her emotions and that is dangerous. Poirot "recalled his experiences that lent themselves to an agreeable exaggeration" (p. 39). He successfully overcomes these biases based on his previous experiences and introduces Nigel Chapman as the criminal of the case.

Similarly, *Murder on the Orient Express* focuses on a mysterious murder that takes place on the *Orient Express* that is on its way to London. Hercule Poirot happens to be travelling on this very train accompanied by thirteen other people of different nationalities and cultures in the same wagon. Due to heavy snow, the train is forced to come to a full stop for about two days in Yugoslavia, during which time a murder occurs. During these two days, Poirot begins his investigations for the sake of his friend, Mr. Bouc, who is in charge of the wagon. Poirot eventually comes to a conclusion right before the train continues its journey, leaving Yugoslavia. The process through which Hercule Poirot comes to recognize the criminals responsible for the murder of Mr. Ratchette is to be broken down into its constituent parts and analyzed in this section.

First, it is essential to prove that Poirot is the suitable person for solving this mystery. Poirot begins his journey on the *Orient Express* not as a detective on mission but as a simple passenger just like everybody else on his way to London to run some errands. He first encounters a young British lady that, accord-

ing to his sharp eyes, seems to be very well-travelled based on how she orders her coffee. As the time passes, he visits more and more people and analyzes their behaviors and characteristics without anyone noticing anything. Based on these observations, he comes to a few conclusions about some of the passengers. Poirot realizes through Colonel Arbuthnot and Mary Debenhams' conversations that Colonel is a very sensitive guy. Mr. Ratchette, who makes Poirot nervous in the pit of his stomach, asks for his help on a case related to him and his enemies, but Poirot refuses, and the next night, Mr. Ratchette gets murdered. Upon the occurrence of this murder, Mr. Bouc, who is very anxious and stressed about the fact that a murder has just taken place on the train that he is responsible for, begs his friend, Poirot, to accept this case. Poirot accepts this challenge and his first reaction to the chaos created by the passengers is sitting back in his chair and thinking deeply. He arranges a set of interviews with all of the remaining twelve passengers and decides that all of them can be potential criminals unless the opposite is proved. He takes all psychological factors in consideration before saying something like "McQueen is too clever and contained to have stabbed Ratchette" (Christie, 1934, p. 51). Poirot pays attention to the slightest changes and details. He notes the change in the tone of Dr. Constantine when he is explaining how the murderer stabbed Ratchette and uses it later when he has got more clues to deal with, just as an effective detective does. Somewhere along the primary stages of investigation, he realizes that Ratchette's murderer must have been left-handed, judging the position and depth of the wounds observed on the corpse. This new information is not enough to convince him, and he awaits more creditable information to arrive sooner or later. This hesitancy in accepting the newly acquired information shows that Poirot is an effective detective. Poirot has "very sharp eyes and nothing hides from his great and penetrating gaze" (p. 73). Poirot's sharp gaze along with his intelligence allow him to recognize the cognitive biases that reside in the minds of the people who are involved in the case. One of these biases is observed when Mr. Bouc expresses how unhappy he is with the fact that this murder had to take place in the *Orient Express* that lies within his domain of responsibility. Such biases exist in the mind of Poirot as well, but he tries to overcome them and analyze the matters without such cognitive biases blurring his point of view. When the napkin with the "H" embroidered on it is found in the crime scene, Poirot negates this assumption that it for sure belongs to Mrs. Hubberd and, therefore, she is the criminal. He is very quick in recognizing the odd from the normal, and that is why he immediately realizes that something is off when he observes the weird oil stain on Countess' passport which later turns out to be one of the greatest clues in this case. The mystery of the embroidered napkin is solved when the princess finally confesses that it is in fact hers. Poirot successfully escapes a lapse in judgment by not judging the clues hurriedly. He strongly believes that "the impossible is possible even if it is not the case on the surface" (p. 103), and it adds to the list of the items that prove he is an effective detective. He notices the smallest slips of tongue and actions and makes sure to use them when it is the time. On the first night of spending time in the train, Poirot accidentally overhears the bits and pieces of the conversation between Colonel Arbuthnot and Mary Debenham and later uses this

evidence to prove that these two are not strangers although they really want to appear as so.

The intertextuality and referencing other works of detective fiction is a common feature of Christie's novels. Mr. Bouc suggests a possible plot according to which the murder could have taken place, but Poirot assures him that such clichés only exist in fiction and tries to deal with the matter realistically. Poirot makes it clear a number of times that he believes in building and maintaining a body of knowledge that can be added to or lessened from. This is a great manifestation of Poirot's 'managing tasks' skills. The importance of psychology and psychological profiling is emphasized by Poirot stating that his methods differ from specialized ones since he believes in the "power of psychology" (p. 171). Poirot's excellence in communication skills is shown through the way he behaves toward each individual. He acts soft and calm toward some and toward the others, he does not hesitate to disclose all the lies they have been feeding him to their faces. He uses an omission process to determine the final criminal and this signifies his excellence in 'controlling the situation' skills. His communication skills never fail him and he succeeds to get all twelve criminals to confess to what they have done. This story, unlike the other one, provides all the necessary clues for Poirot gathered in one place. It only takes a genius like Poirot to find these clues, trace them back to their origins, and make sense of them. Poirot uses clues like the map of the wagon, the tickets of the passengers, and their passports. He also manipulates some of the clues such as the semi-burnt piece of paper with the last name "Armstrong" written all over it. Through this manipulation, he acquires new information.

The biases portrayed in the story can be analyzed on two different levels: a) biases of the suspects and b) biases of the detective. Almost all of the biases of both kinds are related to nationalities and stereotypes attributed to them. The Italian passenger does not want the police to indulge since he believes that "Yugoslavians hate Italians" (Christie, 1955, p. 152) and, therefore, do not treat him with enough justice. Mrs. Hubbard constantly nags about how disorganized the "people of this side of the world" are (p. 18). Poirot himself possesses a few biases directed specifically toward the British and the "Anglo-Saxon minds" (p. 173). He believes that the British do not give any information away unless there is some benefit in it for them. His biased mindset about the commonness of multiculturalism in America in this very rare occasion aids him to solve the mystery of the crime.

Poirot succeeds in carrying out the process of investigation as perfectly as possible. The fact that twelve people participated in a shared act of crime falls prey to the emotional biases of all of the people involved in the case who are not criminals. Poirot who had earlier come up with two possible assumptions about the murder decides that it will be okay to deceive the police by narrating them the first one which happens to be only an assumption and nothing more. This is flattering to witness when pondered upon subjectively, but not professionally. Poirot makes a mistake by creating an atmosphere where the criminals are on the loose.

Conclusion

Criminal psychology is a branch of psychology that is interested in understanding the motivations and thought processes of criminals, including their biases. The author of crime detective fiction constantly navigates the boundaries of the injustices caused by the motivations of these characters and by representing the strict professionalism of detectives, who are also biased. An effective fictional detective is, therefore, someone who can balance the two sides of this spectrum and arrive at a conclusion reasonably void of unjust biases. In this research, we analyzed criminal psychology as performed by Hercule Poirot in a selection of Agatha Christie's novels including *Hickory Dickory Dock*, *The A.B.C Murders*, and *Murder on the Orient Express*. We demonstrated that fictional criminals often possess multiple layers in their motivations and personality. Thus, the resolution of a novel requires the presence of a detective to solve the riddles engendered by these complex motivations. Christie, through applying criminal profiling via her character Poirot, represents a fictional world in which criminals, no matter how intelligent or cunning, cannot get away with their crimes when an analytical mind that uses psychological means is present.

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Syntactic Comprehension in Persian-Speaking Agrammatics: Further Proof of Trace Deletion Hypothesis

Research Article

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Abstract

So far, there have been three important theories explaining the nature and extent of grammatical deficit in agrammatic aphasia. In this respect, while the two mainly performance-based theories of agrammatics, i.e. trade-off hypothesis (TOH) and mapping hypothesis (MH), provide a very broad account of this deficit, the trace deletion hypothesis (TDH) presents a much narrower stance on the nature of the deficit as well as on the question of modularity. This research, being the first one in the Persian context, tries to test this theory in four gender-, education-, and age-matched Persian-speaking agrammatics and the same matched controls via executing a grammatical judgment test. For the purpose of evaluating our participants' performance, 90 pairs of sentences, composed of well-formed and ill-formed ones, were presented to the subjects in a random-

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ized manner, based on which participants were supposed to express their opinions regarding their grammaticality in a grammatical judgment task. The types of sentences being testified included active agentive, object cleft, subject cleft, agentive passive, psychological passive and object WH-constructions. Our findings, in line with the predictions of TDH, indicated that agrammatics faced many challenges with constructions in which constituent movements are involved. In contrast, their comprehension remained intact in agentive constructions. The theoretical and psychological implications of the findings are discussed.

Keywords: aphasia, processing, neurological, modular, TDH

Introduction

Within the last decades, there have been lots of researches whose major objective was to analyze grammatical characteristics of linguistic performance of agrammatics. These pioneering off-line tasks held different stances on both the extent of grammatical deficit and its nature, some of which even cast doubt on the existence of a separate modular deficit in Broca's aphasia as agrammatism and also on its autonomy or interdependence (Beeke et al., 2007; Garraffa & Grillo, 2008; Goodglass & Menn, 1985; Linebarger et al., 1983).

Regarding particular stance they have held on the nature of grammatical deficit, these models should be classified into two major models of modular and interactive. While the former emphasizes the separation of grammatical module asserting that syntactic, semantic, and pragmatic properties are encapsulated modules (Caramazza & Berndt, 1985; Friederici & Frazier, 1992; Grodzinsky & Santi, 2008; Grodzinsky et al., 1985), regarding the latter, it has been widely held that there are not different separate parsing mechanisms for word comprehension on one hand and sentence comprehension on the other hand. That is, they claim a single unitary processing route for word and sentence comprehension suffices (Bates, 1998; Chapman, 2000; Faust et al., 1995; Guo et al., 2010; McClelland, 1987). As a matter of fact, the latter view of language holding a constraint-satisfaction perspective claims that it might be logical to assume that, for a plausible interpretation of a sentence, all contextual, syntactic as well as morphological properties go hand in hand (Mondini et al., 2014; Tan, 2007). Thus, in as much as one constraint met the logical interpretation possible, parsing will terminate; that is, for the listener, it would be redundant to parse all linguistic elements of the sentence from the first to the end (Shetreet, et al., 2016). Henceforth, even in the strictest off-line tests, devoid of contextual cues, the listener or reader would recover the eliminated linguistic context by which he/she could present a parsimonious plausible interpretation (Austin et al., 2015; Frazier, 1995; Seidenberg & MacDonald, 2001).

Within these two broad views of sentence comprehension, three important theories have emerged. The trade-off hypothesis (Frazier & Friederici, 1991; Kristinsson et al., 2020; Nedergaard et al., 2020), the mapping hypothesis (Linebarger, 1995; Mack et al., 2019; Malyutina & Zelenkova, 2020) and the trace deletion hypothesis (Grodzinsky, 1995b; Hickok et al., 1992; Sung et al.,

2020) were among the three important hypotheses which have attracted lots of researchers in the field.

Among these aforementioned hypotheses, the first one asserts that agrammatics' good performance on grammatical judgment tasks on one hand, and their at chance performance on sentence to picture matching task on the other hand, could be explained via additional cognitive load required for the sentence comprehension task compared to the grammatical judgment task (Harun, 2020; LaCroix et al., 2020; Sahraoui & Nespoulous, 2012; Salimi & Dadashpur, 2012; Sample & Michel, 2014).

That is, the first task by its very nature would entail the subjects to be familiar with the task requirement enabling them to store gradual steps necessary to accomplish the task in their mind and then perform the task correctly, all the steps which agrammatic aphasia patients seem to be incapable of administering correctly (LaCroix et al., 2020). This theory is also called the theory of constraint satisfaction highlighting the crucial point that, in so far as the required syntactic, pragmatic, or semantic condition for the plausible interpretation of the sentence is met, parsing would take place automatically (Brown et al., 2019; Frazier & Clifton, 1996; Gibson & Pearlmutter, 1998; Linebarger et al., 2007; McElree & Griffith, 1998).

However, another group of researchers adapted mapping hypothesis (MH), according to which, like TOH additional, cognitive burden on the part of the addressee is necessary to analyze sentence to picture task compared to the grammatical judgment task. As a matter of fact, MH deviates from TOH via divulging the nature of working memory responsible for participants' poor performance on the task. Therefore, according to their viewpoints, agrammatics suffer a specific language register to advocate thematic role assignment. Hence, they assign linguistic competence deficit to the patients (Marshall, 1995; Mitchum et al. 1995; O'Grady & Lee, 2005).

Ultimately, the final hypothesis attracted by many researchers like us, is the trace deletion hypothesis (TDH) which considers agrammatism as a modular subcategory of syntactic competence (Aziz et al., 2020; Hanne et al., 2011). Hence, according to this hypothesis, the pattern of deficit observed in the production and comprehension of agrammatics and also their improper theta role assignment all could be explained via this hypothesis. Hence, two stages, namely phonetic form (PF) and logical form (LF) should be taken into consideration in the analysis of a sentence. It is only within LF stage that agrammatics' understanding would collapse due to their incapability to build connections between the constituents' traces and their antecedents (Sung et al., 2020).

As a matter of fact, there are some important reasons triggering us to select TDH among the aforementioned theories for our investigation of Persian-speaking agrammatic's performance on the syntactic task. First, regarded as a competence theory of sentence comprehension and unlike the two aforementioned hypotheses- TOH which is purely a performance theory, and MH which is also a partial performance theory though partially a competence one- TDH

holds a much narrower and restricted theory of sentence comprehension (Grodzinsky, 1995a) and in doing so, its accuracy and predictions could better be tested in different languages (Wang et al., 2020).

Secondly, as Grodzinsky, the highly renowned scholar who initially proposed the theory, himself pointed out, even within a restricted and modified version of TDH, some counterarguments in diverse languages have been observed (Grodzinsky & Friederici, 2006). To name a few, discourse representational theory of Avrutin (Avrutin, 2000) or the proposal made by Hagiwara (Hagiwara, 1993) could be enumerated. Consequently, as the trace deletion hypothesis pays attention to both intra-lingual and inter-lingual differences among languages of the world meticulously, it could be envisaged as a more reliable and plausible account of syntactic comprehension (Maruszewski, 2017).

The third important point worthy of consideration here, which was the primary impetus for the adaptation of TDH to analyze diverse sentences, was its clearer, more defined and also more systematic explanation of the theory following the linguistic doctrine of generative grammar and more specifically Government and Binding or GB's principle or Minimalist Program (Chomsky, 2014; Fyndanis et al., 2013). As a matter of fact, in this study, we utilized the crucial assumptions of GB and more specifically its newest development, that is, MP. It has been asserted that minimalism developed out of GB (Lasnik, 2002). In other words, once the theory of GB was supposed to have tackled the basic Plato's problem (poverty of stimulus) via proposing different conditions based on which parameters could be set culminating in the creation of diverse languages, then the issue was which GB theory could be regarded as the best. Hence, once the enterprise of explanatory adequacy had been accomplished, an opening was created for the emergence of a model which could concentrate on the dimensions of elegance, naturalness, and parsimony. Within such atmosphere, the minimalist program has emerged (Hornstein et al., 2005, p. 18). According to this model, the general rule of "move alpha" would culminate in the creation of two types of non-canonical structures. While the first category of sentences is the result of A-bar movement (wh-questions, topicalization, relativation), the second category of the sentences is the outcome of A-movement (passives and raising constructions). Taking this theoretical account, in our research, two types of stimuli (agentive passives and psychological passives) are classified as A-movement categories and two types (object wh-questions and object clefts) should be categorized as A-bar movement categories according to MP (Karimi, 2008).

Fourth, our motive for the selection of TDH was that this theory has been much more attested in different on-line priming studies which have proven its psychological reality (Fiebach et al., 2001; Grodzinsky et al., 1991; Hanne et al., 2011; Love & Swinney, 1996; Nicol & Swinney, 1989).

Fifth, different difficult structures whose interpretations were difficult for agrammatics like VP ellipsis, WH-head agreement, reflexives, and tag questions, expressed in the Mapping Hypothesis (Linebarger et al., 1983) yet not ex-

plained systematically, could then be explained well according to this theory. Moreover, concerning TOH, it should also be asserted that its failure to designate and define working memory or, as Ingram asserted, its indifference to defining what type of working memory is responsible for agrammatic's sentence comprehension could all be regarded as reliable evidence whereby TDH could be selected as a more favorite candidate for the evaluation of participants' performance (Ingram, 2007).

Taking all these considerations, and observing the existing gap in the Persian studies, this research tried to probe agrammatics' performance in the designated syntactic task and explain their behaviors within the framework of TDH. More specifically, the current study aimed to investigate which types of sentences are more difficult for agrammatics, if any, and in doing so, discover the observed pattern explaining it within co-indexing relations between constituents and their antecedents.

Review of Literature
Trace Deletion Hypothesis (TDH)

First proposed by Grodzinsky in 1984, Trace Deletion Hypothesis (TDH) was then subject to some modifications by scholars. For example, in 1995, Grodzinsky, holding a much narrower stance, asserted that only traces which were located in theta position could be disrupted in agrammatics (Grodzinsky, 1995a). In his second modification of the theory, he maintained that agrammatics would only utilize heuristics strategy when faced with a referential NP at their forefronts, provided this NP encompasses no theta role (Grodzinsky, 1995b). In other words, borrowing this adaptation from the work of previous researchers (Hickok & Avrutin, 1995), Grodzinsky asserts that there should be a distinction between binding chains and government chains. Thereafter, he claims that agrammatics' problems would only emerge where there is a sort of binding chain in the sentence created by which-N, rather than when there is a government chain created by wh phrases (Friedmann, 2008).

Meanwhile, researchers like Rizzi (1985), attempting to correlate agrammatics' productive as well as comprehensive modes, asserted that linguistic categories which are subject to theta role assignment including both assigners and assignees are not subject to syntactic disruption in agrammatics (Rizzi, 1985). However, it seems that Rizzi' s analysis is even narrower than his predecessor (Grodzinsky, 2000) as it is quite crystal clear that agrammatics exhibit a variety of asyntactic behaviors in their performance. Needless to say, the data from which he generalized his conclusions were extremely limited. Other scholars like Hagiwara (1993) proposed that those functional categories in the lower positions (DP & CP) are less prone to disruption than those standing in the higher positions (IP, NP, Ag P & TP). In this regard, characters like Reznik (1995) modified Rizzi's claims, saying that those functional categories possessing some contents are better preserved because they exist both in the phonetic form (PF) and logical form (LF).

However, regarding the theoretical notions elaborated on this theory, it could be regarded as a much more attested theory in different on-line priming studies which have proven its psychological reality (Fiebach et al., 2001; Grodzinsky et al., 1991; Hanne et al., 2011; Uddén et al., 2020; Wanner, 2019).

When words are moved from their original canonical positions in the sentence depending upon the type of canonical structure we have, which is of course manifested differently in languages with diverse typological characteristics, these traces would be created. Although these traces could be properly co-indexed with their referents by normal controls, they would collapse when agrammatic aphasics try to comprehend these structures. (Maviş, et al., 2019; Xu et al., 2019). Thus, the longer the chain, the more difficult the structure would become for the subjects explaining subjects' more severe problems in object WH-questions and object cleft constructions. Hence, Grodzinsky recommended that diverse configurations of agrammatism be seriously taken into account in any kind of research on agrammatism (Grodzinsky, 2000). Accordingly, once the syntactic dependency between relative pronouns and their place-holders are disrupted, these patients would not automatically be able to assign appropriate thematic roles to the syntactic categories. Through this novel perspective, different problems that mapping hypothesis assigns to thematic role violations on one hand, and trade-off hypothesis attributes to working memory limitations on the other hand, could then be explained homogeneously in a much consistent manner via trace deletion hypothesis (Schilling, 2019)

As a result, it might be logical to assert that the important hypothesis that agrammatism is a language specific syndrome should never be dismissed given diverse languages of the world with different typological characteristics which could affect subjects' performance (Dimmendaal et al., 2019; Soroli et al., 2012).

The study of the syntactic comprehension of agrammatics within the framework of trace deletion hypothesis has been the subject of investigation by many researchers in diverse languages like Mandarine (Su et al., 2007), Korean (Sung et al., 2020), Italian (Barbieri et al., 2013), Malay (Aziz et al., 2020), German (Maviş et al., 2019), Arabic (Diouny, 2010), to name a few. The common ground of all these researches is that agrammatics have lots of challenges comprehending those syntactically complex sentences in which constituents are transformed from their canonical positions. Therefore, as the constituents are moved from their canonical positions to the initial positions of the sentences, it will become challenging for agrammatic patients to parse them. Yet, in some researches, the psychological reality of this hypothesis was not corroborated, and contradictory results were reported (Arslan & Felser, 2018; Hanne et al., 2011)

Meanwhile, in Persian setting, the aphasic patients' syntactic comprehension was tackled by some scholars. For example, Nilipour & Raghibdoust (2001), via the investigation of linguistic deficits of seven native Persian-speaking patients with different etiologies, enumerated major morphosyntactic as well as agrammatic deficits attributing them to the size and site of the lesion. Ameri and her colleagues (Ameri et al., 2008) tried to scrutinize the relation

between cognitive parameters and syntactic complexity in Broca's patients, and demonstrated how cognitive deficit could affect these patients' comprehension negatively. They concluded that the reinforcement of Broca's patients' ability to process complex cognitive sequencing improves their comprehension of atypical syntactic structures. Shiani et al. 2019 also analyzed the impact of sentence complexity on Persian-speaking aphasic patients, and demonstrated how cognitive deficit could affect these patients' comprehension. Utilizing a binary sentence-to-picture matching task, they tried to scrutinize the performance of 6 non-fluent aphasic patients. Their results showed that these patients have difficulty understanding non-canonical syntactic structures including clefts and relatives. They attributed patients' weak performance to the malfunction of cognitive resources, specifically, working memory. Ultimately, the production of some types of syntactically complex sentences, including wh-questions, topicalized constructions and passives was scrutinized by Mehri and her colleagues (Mehri et al., 2016). The results of their study showed that aphasics have lots of challenges comprehending topicalized and focused sentences. They concluded that sentences with argument movements are among the most difficult types of sentences for the patients.

As stated above, despite the fact that some researchers tried to analyze Persian-speaking aphasics' syntactic comprehension, and employed different stimuli and methodologies to evaluate patients' performance, they did not utilize diverse tasks for this objective. Nor did they adapt trace deletion hypothesis to explain their patients' understanding. In some cases, they only concentrated on the productive rather than comprehensive abilities of the patients. In this study, observing this gap in the literature, and recruiting two diverse tasks for the assessment of our patients' performance to analyze the effect of task type, and also following the framework of trace deletion hypothesis, we scrutinized the comprehension of Persian-speaking agrammatics.

Method
Subjects

Having reviewed the neuropsychiatric profile of the patients, and conducted a psycholinguistic test, four gender-, education-, and age-matched Broca's patients were selected. Moreover, our participants in the control group were also matched according to the aforementioned socio-demographic parameters. The study is engaged to apply ethics of research, based on Declaration of Helsinki in 2000 (Riis, 2000). Moreover, it was committed to employ ethics of research based on American Pychological Association's Ethical Principles of Psychology (Hadjistavropoulos, 2002). All participants signed the written informed consent for contribution. The confidentiality of the information obtained from the participants, and the preservation of the names of participants were considered using coding. The lesion site descriptions of each patient are presented in Table 1. Our selected subjects were all male, in the age range of 50-65 years. Moreover, as for their educational backgrounds, they had at least a diploma. The diagnostic test to assess aphasics was the Boston Diagnostic Aphasia Exam-

ination (Goodglass & Kaplan, 1972). Farsi version of Aphasia Test developed by Nilipour (1994) was adopted to screen the subjects' aphasia type. Moreover, the review of neuroradiology testified our evaluation demonstrating that our classification was in line with the classical Broca's type. As a matter of fact, the main reason why we chose Broca's patients in our research was fundamentally the fact that it has been scientifically proven that agrammatism is a symptom of Broca's aphasia (Tesak & Code, 2008)

Noteworthy to say, though the lesion site description of each Broca's patient has been presented, as Ingram asserted, no designated lesion site could culminate in agrammatism and it has been scientifically attested that an interaction of cell assemblies is involved in this syndrome. Thus, the properties of agrammtism could well be defined via psycholinguistic tests rather than clinical observations (Ingram, 2007). Taking this important scientific consideration, we could understand more of the nature of agrammatism in Broca's aphasiac patients through conducting a syntactic comprehension test, and why administering such a test could be fruitful.

Table 1
The Lesion Site Descriptions of Patients

Patient	Aphasia Type	Description
OF	Broca's	OF is a male suffering a stroke in 1990. An MRI taken that year exhibited a diffuse lesion including posterior frontal lobe.
BD	Broca's	BD is a male suffering a stroke due to an accident in 1992. The lesion site involved was the inferior anterior parietal lobe.
SF	Broca's	SF is a male suffering a stroke in 1995. A CT scan taken that year indicated lesions in inferior frontal gyrus as well as insular cortex area.
TU	Broca's	TU is a male suffering an accident in 1994. The study of CT scan taken that year showed the involvement of lesion sites including left temporal lobe as well as inferior portion of BA.

Instruments and Procedure

As mentioned in the previous section, Farsi version of Boston Diagnostic Aphasia Examination (Goodglass & Kaplan, 1972), already normalized and standardized by Nilipour (1994), had been administered to screen our subjects' aphasia type. Also, a written consent form proving our patients' satisfaction to participate voluntarily in the study had already been taken. Nevertheless, the primary tool to assess our patients' knowledge of syntactic comprehension was a grammaticality judgment task.

Grammaticality Judgment Task

In order to depict a realistic, insightful, and in-depth picture of the syntactic knowledge of aphasics, a grammatical judgment task was conducted to exactly understand whether syntactic comprehension of aphasics was intact. One ma-

jor rationale for the selection of the grammaticality judgment task and favoring it to the well-known figurine-act task was that it has been previously attested that the former task relies on less cognitive processing than the latter. As a result, their reliance on the working memory to parse the sentence would diminish (Brown et al., 2019; Charles et al., 2008; Murray, 2018; Schwering & MacDonald, 2020).The procedure for the task administration was as follows. Ninety pairs of sentences of six group types composed of well-formed and their ill-formed counterparts were presented to the subjects. The first type included those sentences in which the subject is regarded as the agent of the sentence (agentive group); for example, "ali sib rɒ xord" rendered in English as "Ali ate the apple". An important typological property worthy of consideration here is that the default syntactic structure of Persian is SOV. Endowed with an SOV order in the main and subordinate clauses when the object is phrasal, and with a very strong tendency to utilize the SVO order when the object is clausal, Persian enjoys some typological features similar to both OV and VO types of languages. So some scholars like Dabi-Moghaddam (2013) categorized it as a mixed group of languages - unlike English categorized as VO group of languages- meaning it is the object which precedes the verb in the canonical sentence structure. The second type of sentences included object cleft structures. The type of cleft construction utilized in our study belongs to it-cleft category. In Persian, clefting occurs when the focused constituent of the sentence moves from its unmarked default position to the initial position of the sentence and is followed by a copula and a ke (that) relative clause (Karimi, 2008; Mahmoudi, 2019). These sentences are normally used by native speakers of a language to emphasize their focal points, in this case, object. For instance, (TP"ʔin ketɒbi bud ke (TPali ti moʔtɒleʔe kard")) rendered in English as "(TP It was this booki which (TPAli studied ti))". The third group encompassed subject cleft sentences in which, again for the goal of emphasis, yet this time, subject, is singled out to stand at the forefront of the addressee, namely sentences like "ʔin marjam bud ke televizijun ro roʃan kard" rendered in English as "It was Maryam who turned on the TV". The fourth group of the sentences included agentive passive constructions in which it is the patient which occupies the subject position of the sentence rather than the typical subject placed at the end of the sentence. For example, "(TPmaqɒlei tavassote (TPali neveʃte ʃod ti)") which is rendered in English as "(TPthe paperi (TP Ø was written ti by Ali))". The fifth group includes psychological passive types. Psychological verbs are those expressing our inner feelings or psychological states like "tarsidæn, azijat kardan, randʒɒndan" rendered in English as "frighten, annoy and resent" respectively. In the canonical type of psychological verb construction, the doer of the action occupied the subject position, but the person or thing affected occupies the object position producing sentences like "jaʔqub marjam rɑ tarsɒnd" rendered as "Jacob frightened Mary". Yet, in the passive forms of psychological constructions, the object substitutes for the subject occupying its position resulting in the sentences like "(TPmarjami tavassote (TPjaʔqub tarsɒndeh ʃod ti))" rendered in English as "(TPMaryi (TPØ was frightened ti by Jacob))". Ultimately, our sixth group included object wh-questions, that is, the structures in which the object is questioned and moved to the initial position of the sentence. These

so-called object-wh questions start with "ʧe" like "ʧekasi" or "ʧe ʧizi" rendered in English as "whom" or "what" respectively. For example, this group includes sentences like "(TPʧe kasii rɒ (TPdidid ti))" rendered in English as "(CP Whomi did (TPyou see ti))?" or "(CPʧe ʧizii rɒ (TPpejdɒ kardid ti))" rendered in English as "(CPwhati did (TPyou find ti))?"

It is noteworthy to say, in order to eliminate the effect of the context upon our subjects' performance, no contextual clues were utilized. Having randomized and recorded the stimuli, a native speaker of Persian presented them to the subjects. Furthermore, for the purpose of subjects' familiarity with the experiment, three training sentences of each type were presented to the subjects. When presented with different stimuli, each subject was required to judge upon their grammaticality asserting whether the sentences were "ill-formed" "bad" or "well-formed" "good". In fact, each well-formed structure was paired with its ill-formed counterpart. The experiment took place in a quiet room, and all stimuli were presented to the participants in written printed forms. Each participant was tested individually. Also, all sentences were randomized. That is, in order to avoid repetition of the sentence, all stimuli, composed of grammatical and ungrammatical structures, were counterbalanced across participants, and Furthermore, for the fulfillment of decreasing the impact of prosodic features on subjects' performance , in line with Linebarger and his colleagues' procedure, all the sentences either well-formed or ill-formed were pronounced by the researcher with the same intonation pattern (Linebarger et al., 1983). Moreover, for the aim of neutralizing the probable impact of the variable of "length" upon our participants' comprehension, we also controlled the number of words included in each sentence which ranged from five to nine. Also, all sentences were presented out of context to exclude the impact of contextual features upon subjects' performance.

Data Analysis

The data were analyzed by Spss software (version 16; SPSS Inc., Chicago, IL, USA). We analyzed the inter-rater-reliability of the responses. As a result, all responses of each participant were scored initially by the researcher, and at the next stage, by a trained autonomous judge. Point to point consensus ranged from 92 to 100 % (Mean = 96). Since both control group and our patients were homogenous, the data were analyzed at the group level. As the data demonstrated normal distributions, parametric tests were used. Utilizing an independent T-test, we compared the performance of the control group with the performance of aphasics. Using one-way repeated measures ANOVA for the six types of sentences, we compared our patients' performance. Moreover, in order to examine the effect of the sentence type upon our patients' comprehension, we employed paired T-test.

Results

One-way repeated measures ANOVA for the six types of sentences culminated in a main effect of sentence type, $F_{(4, 38)} = 33.96$, $P < .0001$. The performance

of our first subject on subject agent and subject cleft structures was 96 and 91 percent correct responses, respectively, significantly above chance, subject agent: t (20) =3.91, p = .0005; subject cleft: t(20) =3.49, p =.001. As for agentive passive and psychological passive constructions, his performance was at chance with 50 percent correct responses, t (20) = 88, p = .31, below chance with forty-two percent correct responses, t (20) = 1.30, p =.208. Yet, concerning both object WH constructions, 30 percent correct responses, t (19) = -3. 31, p = . 819, and object cleft ones (37 percent correct responses, t(19) = - 3. 34, p = . 818), his performance was significantly below chance, t (20) = - 1. 17, p = . 0711.

Subject 2 (BD) performed above chance at eighty-seven percent of the subject agentive constructions (t (20) = 2. 91, p = . 005). Concerning his performance at subject cleft (eighty 2 percent), a similar observation was made (t (20) = 2. 75, p = . 005), though he carried out the former test better. As for agentive passive, he had at chance performance with sixty percent correct responses (t (20) = .88, p =. 52) and below chance performance with forty-eight percent correct responses in psychological passive constructions (t (20) = 1. 44, p = . 0818). Also, in the object Wh constructions, he had below chance performance with thirty-five percent correct responses (t (20) = 1. 87, p=. 0 837) and 45 percent correct responses at object cleft constructions (t (20) = 1. 48, p = .0 828).

Subject 3 (SF) performed above chance in both subject agentive (eighty-six percent correct responses, t (20) = 2. 56, p = .014) and subject cleft constructions (eighty percent correct responses, t (20) = 2. 14, p=. 0 22). Concerning agentive passive with fifty three percent correct responses (t (20) = . 98, p = . 32) and psychological passive constructions with forty one percent correct responses (t (20) = . 82, p = . 45), he had at chance performance. And finally, as for both object WH constructions with thirty-one percent correct responses (t (20) = 2. 00, p =. 166) and object cleft constructions with forty-six percent correct responses (t (20) = 1. 42, p =. 0818), he had a below chance performance (t (20) = 1. 42, p =. 0 818).

As for subject 4 (TU), again a similar pattern was observed with subjects performing above chance at both subject agent with ninety percent correct responses (t (20) = 3. 26, p =. 0005) and subject cleft with eighty-five percent correct responses (t (20) = 3. 19, p = . 0005). This subject, unlike previous subjects, concerning both agentive passive constructions with forty-five percent correct responses (t (20) = 1. 20, p =. 187) and psychological passives with forty-two percent correct responses (t (20) = 1. 30, p =. 260) had below chance performance. As for object WH constructions, he had a significantly below chance performance with twenty-five percent correct responses (t (20) = - 1. 46, p =.0825). A rather similar pattern was observed in object cleft constructions with thirty percent correct responses (t (20) = - 1. 66, p = . 0817).

In contrast with agrammatics, regarding the control group, one-way repeated measures ANOVA for the six sentence types demonstrated no main effect of sentence type, F(38) = . 87, p = . 44. As a matter of fact, they perform very well

on all sentence types of subject agentive, subject cleft, agentive passive, psychological passive, object cleft and object WH-questions with 98%, 96%, 95%, 92%, 93%, 90% correct responses, respectively.

Discussion

This pattern, in which subject agentive and subject cleft structures are comprehended above chance and are significantly more easily interpreted than object cleft, agentive passive and object WH- constructions, corroborates many reports in the literature of the agrammatic comprehension of complex structures (Friedmann, 2008; Maviş et al., 2019; Xu et al., 2019) further advocating our diagnosis of agrammatic aphasia. In contrast, our results are inconsistent with Linebarger and his colleagues' and Smith's studies, in which, having conducted the same grammatical judgment task, they concluded that agrammtics perform above chance in most syntactically complex sentences (Linebarger et al., 1983; Linebarger et al., 2007; Smith, 2011).

Moreover, the fact that our subjects significantly performed poorly on object WH questions or object cleft structures corroborates TDH's predictions that agrammatics' comprehension would be disrupted when faced with a longer chain formed by different NP traces or when traces are not bound accurately by their antecedents. In other words, when words are moved from their original canonical positions in the sentence, which is of course manifested differently in languages with diverse typological characteristics like Persian, these traces would be created. Although healthy people could easily find the referents of these traces, agrammatics would confront with lots of challenges when trying to parse these structures. (Beretta & Munn, 1998; Dimmendaal et al., 2019; Grodzinsky, 1995a; Soroli et al., 2012). Hence, In the light of this research which is of course in line with the predictions of the theory, the longer the chain, the more difficult the structure would become for the subjects explaining their more severe problems in object WH-questions and object cleft constructions (Schilling, 2019; Wanner, 2019).

As observed, as soon as the complexity of syntactic structures increases when linguistic items are dislocated, our agrammatics' parsing problems would escalate (Uddén, et al., 2020). Hence, diverse configurations of agrammatism should also be seriously taken into account in any kind of research on agrammatism (Grodzinsky, 2000). Therefore, once the syntactic dependency between relative pronouns and their placeholders are disrupted, these patients would not automatically be able to assign appropriate thematic roles to the syntactic categories (Brown et al., 2019). Accordingly, through this novel perspective, different problems that mapping hypothesis assigns to thematic role violations on one hand, and trade-off hypothesis attributes to working memory limitations on the other hand, could then be explained homogeneously in a much consistent manner via trace deletion hypothesis (LaCroix et al., 2020; Sahraoui & Nespoulous, 2012; Salimi & Dadashpur, 2012; Sample & Michel, 2014). Proof to our claim comes from our aphasics' inappropriate and poor performance in

this grammaticality judgment task. Despite the fact that we utilized the grammaticality judgment task instead of the figurine-act task to decrease the cognitive demand on the part of our patients, surprisingly they still performed at chance or below chance levels in the structures in which either A-movement (object clefts, agentive passives, and psychological passives) or A-bar movement (object wh-questions) were vivid within the framework of trace deletion hypothesis. Consequently, our findings are inconsistent with the predictions of theoretical accounts like trade-off hypothesis or mapping hypothesis, which emphasized the role of task on the comprehension of aphasics (Kristinsson et al., 2020; Linebarger, 1995; Mack et al., 2019; Malyutina & Zelenkova, 2020; Nedergaard, 2020).

Also, our results corroborate the important hypothesis that agrammatism is a language specific syndrome given diverse languages of the world with different typological characteristics which could affect subjects' performance (Soroli et al., 2012; Tzeng et al., 1991). Noteworthy to mention is the preservation of our subjects' performance in subject cleft structures and the minimal impact of keh upon their interpretations. As a matter of fact, our subjects' rather intact performance could be explained with the consideration of an important syntactic difference between Persian and English in that, while in the latter, the above linguistic element serves as a relative pronoun bearing a particular meaning and theta role in the D-structure, in the former language, as a pure linker, it is void of semantic content not playing a crucial role in subjects' interpretation (Ghomeshi, 1996). Therefore, within this novel statue of keh in cleft structures of the Persian language (Karimi, 2008) and within the predictions of trace deletion hypothesis, in Persian, interpretations of the subject cleft could not be problematic for agrammatics (Ameri et al., 2008).

Furthermore, according to Persian structure, due to the nature of its verb morphology, it is common that a "resumptive" pronoun be attached to the verb as an enclitic which could then be co-indexed with subject and object in subject and object cleft constructions, respectively (Karimi, 2008; Mahmoudi, 2019). Hence, the resumptive counterpart of "in ali bud ke sib rɒ xord" would be "in Ali budeʃ ke sib ra xord". As a matter of fact, It has already been proven that the presence of such morpho-syntactic elements could boost subjects' interpretations (Rahmany et al., 2014). Taken this important psycholinguistically proven factor into account, our main motif for the elimination of this morpho-syntactic cue was to purely evaluate our subjects' grammatical competence, which, as shown, was yet disrupted in the stage of appropriate thematic role assignment.

Thus, taken these cross-linguistic variations into account, conducting diverse researches in different types of languages, and utilizing research with a much larger sample size, when concomitant with on-line neurolinguistic studies in which different techniques like eye-tracking are used, could shed more light on the nature of sentence comprehension, and could provide proof on the validity and psychological reality of the trace deletion hypothesis (Wang et al., 2020).

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Motivational and Textual Factors and Affordances in Iranian EFL Learners' Reading: Using Semi-Structured Reflections Written During Reflective Learning Process

Research Article

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Abstract

Reading comprehension has a multidimensional nature, and different factors and affordances affect the language learners' read-

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ing performance. The present study examined Iranian EFL learners' reading motivation orientations and investigated the motivational and textual factors and affordances in reading, considering the learners' reflections. The participants of the current study were 32 Iranian high school learners. The Persian translation of Motivation for Reading in English Questionnaire (MREQ) developed by Komiyama (2013) was administered to determine the participants' orientations on the motivational dimensions. Analyzing the results of the questionnaire showed that the mean score of extrinsic motivation was higher than the mean score of intrinsic motivation. Motivational and textual factors and perceived affordances were also revealed using a qualitative analysis of the participants' semi-structured reflections written during reflective learning process. The results of the questionnaire and reflections analyses can increase teachers' awareness of the influential factors in reading based on the learners' perceptions, and can help them provide effective feedback and appropriate learning opportunities.

Keywords: reflection, reading, text, motivation, affordances

Introduction

Reading comprehension involves different types of abilities ranging from recognizing words, developing large recognition vocabulary, and processing sentences, to employing strategic processes and cognitive skills which can include setting goals, changing goals flexibly, monitoring comprehension, referring to background knowledge, interpreting, and evaluating texts according to the reader's goals and purposes (Grabe, 2014). Various predictors and factors including learners' motivation, metacognitive awareness, background knowledge, textual and contextual elements and learning styles and strategies should be taken into account regarding the reading's multidimensional nature (Grabe, 2009; Grabe & Stoller, 2013). Accordingly, engaged readers should be motivated, strategic, knowledgeable in their meaning construction, and interactive during reading (Guthrie et al., 2012).

Gibson (1979) initially proposed the concept of affordances which "… refers to the fit between an animal's capabilities and the environmental supports and opportunities (both good and bad) that make possible a given activity" (Gibson & Pick, 2000, p. 15). According to Van Lier (2004), "in terms of language learning, affordances arise out of participation and use, and learning opportunities arise as a consequence of participation and use" (p. 92). Affordances may be predicted or arise during the lesson in an affordance-based lesson plan (Anderson, 2015) though they are mostly unpredictable. Therefore, affordances are the perceived learning resources and opportunities through interaction and engagement of the learners in learning contexts (Mercer et al., 2012).

Several researchers have focused on the effect of reflective practice on language learners' performance, such as Nourdad and Asghari (2017) who examined the effect of reflective reading through reflection writing finding its positive effect on reading comprehension of Iranian EFL learners. Writing reflections during the reflective learning process can not only affect the learners' performance but also make it possible to explore the effective factors, affordances and learning mechanisms involving the learners' perception of action, in action and their planning for action. Writing semi-structured reflections provides an opportunity for learners to assess themselves in a learner-oriented process. It slows the pace of learning (Moon, 2004) and lets the learners think deeply and regularly about their learning and write about it. During the process, the learners can reflect on their needs, strengths and weaknesses and reveal their perception of the relevant psychological and linguistic factors. Moreover, the learners can be provided with appropriate feedback and learning opportunities, which enhance their engagement and willingness to learn.

The present study examined Iranian EFL learners' semi-structured reflections during the process of reflective learning as the manifestation of their perceptions regarding effective factors in reading. We analyzed the learners' semi-structured reflections and used the emerging themes to provide them with appropriate learning opportunities through giving efficient feedback, designing an influential lesson plan considering learners' and learning needs, providing and developing appropriate materials and creating a relaxed classroom environment. We also examined the learners' orientation of motivation for reading considering the intrinsic and extrinsic dichotomy and their different dimensions. The study addressed the following questions:

1. What motivates Iranian EFL learners to read in English based on the results of Motivation for Reading in English Questionnaire (MREQ)?

2. What are the effective motivational factors and affordances for reading based on the Iranian EFL learners' reflections?

3. What are the effective textual factors and affordances for reading based on the Iranian EFL learners' reflections?

Review of Literature
Motivational Factors and Affordances for Reading

Motivational factors and affordances affect language learners' performance. Constructs of motivation for L2 reading have been defined and identified by different researchers including Kondo-Brown (2009), Lin et al. (2012), Mori (2002), Mori (2004), Takase (2007), Komiyama (2013), and Komiyama and McMorris (2017). In one classification of motivation for L2 reading by Komiyama (2013), three constructs, including curiosity, involvement, and preference for challenge, were attributed to intrinsic motivation which involves learning about topics of personal interest, experiencing reading interesting materials, and gaining satisfaction from challenging ideas of the text. Five con-

structs, including competition, compliance, and recognition for reading, grades, and social goals, were considered as indicators of extrinsic motivation. Extrinsic motivation, in fact, subsumes reading to fulfill demands and requirements, outperform peers, get good evaluations and recognition from others, and to share what one reads.

Komiyama and McMorris (2017) explored the relationship between the students' L2 reading motivation and classroom instruction and indicated that their motivation to read was based on intrinsic motivation and identified regulation. The content of the reading and peer discussions affected the students' motivation to read in English. Intrinsic motivation in L2 had more predictive power on higher order comprehension (HOC) than text-based comprehension (TBC), while extrinsic motivation had more predictive power on text-based comprehension (TBC) based on Xu and Durguno ğ lu (2019). According to Saeedakhtar et al. (2018), both intrinsic and extrinsic motivation showed significant correlation with L2 willingness to communicate (WTC) among Iranian learners. Only intrinsic motivation predicted L2 WTC significantly and extrinsic motivation was more dominant. Teacher immediacy, the teachers' and peers' judgment, and scoring were the top motives influencing the learners' WTC according to the results of the interview. The findings also showed higher degrees of willingness to listen (WTL) and willingness to write (WTW) than willingness to read (WTR). In their study on adult ESL students' attitude toward reading, Ro and Chen (2014) found that the students with positive attitudes tended to read more. Learners' attitudes towards different aspects of L2 reading are both positive and negative and they showed different motivation levels for reading in English, with females having higher scores than male participants (Cirocki & Caparoso, 2016). Akbari et al. (2019) also studied the role of L2 reading attitudes in developing the construct of L2 reading motivation among Iranian EFL learners. A six-factor solution was indicated to be ideal for conceptualizing the L2 reading motivation construct. The factors contained L2 motivational and attitudinal items. The construct was a good predictor of the reading achievement of the learners compared to the construct lacking the attitude items of L2 reading.

Self-reflection activities and assignment were also found to be helpful in improving students' positive thinking, learning motivation and self-regulation according to Wang et al. (2017). Investigating the impact of reflective journal writing on enhancing students' learning motivation, Amirkhanova et al. (2016) found that reflective journal (RJ) writing and increasing self-confidence enhanced students' motivation.

Reflection through keeping a learning journal written during the reflective learning process is a kind of self-assessment which can be both content and experience-based. It can improve learning and reveal the learners' perception of the psychological and linguistic factors and affordances.

Textual Factors and Affordances for Reading

Comprehension of a text consists of the ability to reproduce, analyze and use information, and to reflect on the written text. The crucial step in comprehending a text is creating mental representation of the meaning of the text and text-specific factors including text genres and textual clues, comprehension skills mainly including inferential and inference making skills and cognitive factors mostly including background knowledge affect comprehension (van den Broek et al., 2016).

According to Thoms and Poole (2017), there are three distinct types of affordances including linguistic, literary, and social affordances, and the number of literary and social affordances were larger in number than the linguistic affordances. In Dewaele's (2010) study, affordances have been operationalized as a total score reflecting the knowledge of languages related to the target language. For French learners, knowledge of other languages would create stronger affordances. Participants with French as an L2 and L3 who knew other Romance languages felt more competent in French and reported lower levels of Foreign Language Anxiety (FLA).

Investigating the perceived affordances in reading and writing, Taipale (2014) found that the medium of reading may affect reading performance. Students considered reading and writing on paper and digitally as different affordances. Accordingly, the students perceived reading on paper as more positive than negative, ascribing fewer merits to reading on screen. Writing on a keyboard, however, was perceived as a positive affordance for enabling quick and efficient text editing and increasing textual productivity.

Textual factors can also be considered as a type of affordance. Real-life language of the text and its authenticity, length and structure may affect the reading performance. Authentic reading materials increase the learning motivation and attitude. Type of reading comprehension affects the time and efficiency of reading depending on the reading purpose (Kung, 2019). Raising awareness of text structure by choosing different expository texts results in improving the students' reading comprehension ability (Ghorbani Shemshadsara et al., 2019).

The learners' prior knowledge, text difficulty and the text topic are among other influential factors. Linguistic proficiency and prior knowledge account for more than fifty percent of the variability in the reading comprehension of the participants. Furthermore, text difficulty has an influence on L2 reading comprehension (Bilikozen & Akyel, 2014). Provision of background knowledge caused L2 readers with higher working memory capacity achieve better reading comprehension than the readers with low working memory (Shin et al., 2019) and it is clearly beneficial for EFL learners to spend time to read L2 materials above their current level (Namaziandost et al., 2019).

Syntactic knowledge of the learners accompanied with the breadth and depth of vocabulary and situation can predict the reading performance. Research points to a significant relationship between knowledge of vocabulary and reading comprehension for Iranian EFL undergraduate students of English

(Anjomshoa & Zamanian, 2014). Nevertheless, Maftoon and Tasnimi (2014) indicated that the effect of syntactic knowledge was higher than vocabulary breadth and syntactic knowledge was a determining predictor of reading comprehension in self-regulated group. In short, research on textual and non-textual affordances for reading comprehension so far shows the complex, multi-faceted nature of this skill, and there is still much to do to figure out how to provide optimal conditions for reading efficiently.

Method
Participants

Participants of the current study were 32 Iranian EFL learners in a senior high school. They were female learners with an intermediate proficiency level and their ages ranged from 16 to 18 years old. As the researchers investigated naturally formed groups (intact classes), convenience sampling method was possible. Preliminary English Test's (PET) results were used to homogenize them as their proficiency level could potentially affect their perceptions of the motivational and textual factors as well as their reflections.

Instruments and Materials

Reading Materials. Reading materials consisted of reading texts with different topics from the learners' textbook, texts from some supplementary resources like Reading and Vocabulary Development series, PET and University Entrance Exams. Flesch Kincaid Calculator, which calculates a Flesch Readability Ease score and the Flesch-Kincaid Grade Level score, was applied to calculate the readability of the texts to homogenize the texts and choose them according to the learners' proficiency level. The calculator's scores fall between zero and 100 and the readability scores calculated for the texts selected for the study ranged between 52 and 66, which is considered appropriate for 10th to 12th grade (high school).

Motivation for Reading in English Questionnaire (MREQ). The Persian translation of Motivation for Reading in English Questionnaire (MREQ) developed by Komiyama (2013) was administered to determine the main motivational dimensions that make EFL learners read in English. The questionnaire has been applied in some studies like (Zhao, 2016). The Persian version of the questionnaire like the English version contains 44 items, which measures the two main constructs of intrinsic and extrinsic motivation consisting of eight dimensions. Intrinsic motivation construct consists of curiosity, involvement, and challenge, and extrinsic motivation includes five constructs including competition, recognition, compliance, grades, and social sharing. The questionnaire was translated and validated in this study. After being translated into Persian, two experts checked its validity and it was piloted for its clarity and reliability estimates. The English version of the questionnaire enjoys acceptable validity and the reliability of the original version for eight constructs ranging from .69

to .82. Internal-consistency reliability (Cronbach's alpha) of the Persian translation was .86 for intrinsic motivation and .88 for extrinsic motivation and the index ranged from .70 to .77 for the eight constructs in the pilot study. In the main study, the Cronbach's alpha of the Persian translation was .90 for intrinsic motivation and .88 for extrinsic motivation and the index ranged from .70 to .79 for the eight constructs.

Semi-Structured Reflection Sheet. Learners reflected on their reading experiences and text content using a semi-structured reflection sheet. Recommendations for diary studies by Dörnyei (2007), sample after-class reflection worksheet for the teacher by Grabe and Stoller (2013), the constructs in Metacognitive Awareness Inventory (MAI) (Schraw & Dennison, 1994) and sample reflection questions employed in reflection-related research were used to generate the reflection sheet's questions. After studying the recommendations and comparing the existing sample reflection sheets, the first draft contained more than fifteen questions about how and what the learners did and learned and what they found to be effective. The questions were piloted among some EFL learners so that any repetition and ambiguous points in the questions could be revised. They were also reviewed by some English teachers. After piloting and revising, the number of questions were reduced and the redundant ones were deleted. The final reflection sheet was checked and approved by two experts in TEFL.

Procedure

The Persian version of Motivation for Reading in English Questionnaire (MREQ) (Komiyama, 2013), which had been translated and validated in this study, was administered once at the beginning of the study to the participants to determine the learners' orientation of reading motivation constructs. The results of this administration were used as a set of guidelines for dealing with affordances and the treatment of reflection activities. As such, we did not administer the questionnaire for the second time since our purpose was not investigating the effect of reflective learning on the learners' motivations. The participants were provided with explanation about writing reflection and what and how they were supposed to write. As their first experience, they were asked to write a reflection without giving them the semi-structured reflection sheet questions. They were supposed to write based on the text content and their experiences after reading.

During the study, participants read a text each session and did the exercises or answered the questions. Reading texts were followed by introducing reading strategies incorporated in their course book accompanied with teaching sentence structures and new vocabularies. Skimming, scanning, and highlighting main ideas were among the strategies, which were mainly taught during the instruction. Inferential skills, determining the main idea, the best title, scanning for details, identifying referents, making inferences, identifying the authors'

attitude, making predictions and guessing meaning of unknown words were mainly focused on in their reading activities.

Learners wrote semi-structured reflections after reading sessions. Reflection sheet questions were revised slightly during the study and the learners were allowed to write down both in Persian and English. They wrote their reflections during class time and were encouraged to add any additional points which had not been mentioned in the reflection sheet questions. They reflected on the text content, their experiences, and their upgrading plans for future reading. They had enough time to focus on the text and sentence structures and their reading strategies. They focused on note taking, inferring, paraphrasing, summarizing, monitoring learning, and managing time and information. It was observed that through writing reflections most of the learners had opportunities to receive helpful feedback, engage in reading activities deeply, search for appropriate reading materials and talk about their motivations and interests.

All in all, ten semi-structured reflections were completed by each student after the reading sessions. Each session, the researchers collected and reviewed the learners' reflections which were written mostly in Persian, and then extracted the influential factors and affordances based on the learners' perception. The participants' answers were coded, categorized to explore the motivational and textual determinants, predictors and affordances. The participants' sample answers to the reflection questions were translated into English to be used in the present article.

Design and Data analysis

The design of the present study was mainly qualitative. The responses to the Likert-scale items were averaged to achieve the mean scores of intrinsic and extrinsic motivations and their eight dimensions, which revealed the reading motivation orientations of the participants. Learners' reflections as learning journals were collected each session. The data were coded and themes and categories were extracted.

It was attempted to meet the trustworthiness of the data, considering the criteria proposed by Lincoln and Guba (1985) including credibility, transferability, dependability, and confirmability. Prolonged engagement was assured by the constant presence of the first author in the research field in the capacity of the teacher. The participants became gradually familiar with the type of activity that they were supposed to do. Qualitative data collection was regarded as a part of their learning process. The participants wrote reflections regularly as was mentioned in the procedure in order to learn to write and write to learn. The participants' reflections were collected each session and it was tried to focus on the details of the study and the happenings in the class (creditability). The problem, the purpose of writing reflections, and the setting were explained so that the readers and outsiders can recognize the major focus of the study and its scope and decide on possible transfer of the results (transferability). It has been attempted to report the learners' perception based on the learners'

answers to the reflection questions, some excerpts of which have been illustrated. It was tried not to mediate in the learners' writings by giving them just the framework for writing (confirmability). Themes and categories are not limited to motivational and textual ones but they are focused in the current paper.

Results

Research Question 1: *What motivates Iranian EFL learners to read in English based on the results of Motivation for Reading in English Questionnaire (MREQ)?*

The first research question dealt with the reading motivation dimensions that motivated EFL learners to read in English. The participants' responses to the 44 Likert-scale items were analyzed through descriptive analysis (Table 1).

Table 1
Descriptive Statistics of Reading Motivation Orientations

Reading motivation constructs	N	Mean	Std. Deviation
Intrinsic	32	3.21	.41
Curiosity	32	3.23	.48
Involvement	32	3.33	.45
Challenge	32	3.08	.56
Extrinsic	32	3.27	.34
Competition	32	3.16	.43
Recognition	32	3.30	.45
Compliance	32	3.29	.53
Grades	32	3.56	.47
Social	32	3.05	.70

As shown in Table 1, comparing the intrinsic and extrinsic dichotomy, we can see that the mean score was slightly higher for extrinsic motivation than intrinsic motivation.

Among the eight dimensions, three of them (curiosity, involvement, preference for challenge) were intrinsic and five of them (competition, compliance, grades, recognition, social sharing) were extrinsically-oriented. The mean score for 'grades' was the highest and it was the lowest for 'social' dimension (Table 1).

Research Question 2: *What are the effective motivational factors and affordances for reading based on the Iranian EFL learners' reflections?*

The second research question dealt with the learners' perceptions of the motivational affordances of reflective learning for reading. As shown in Table 2, reflective learning can create affordances itself and there are different effective motivational factors and affordances for reading in English, which can be attributed to both intrinsic and extrinsic motivations. As mentioned before, the participants' sample answers, which had been mostly written in Persian, were translated into English.

Table 2
Learners' Perception of the Motivational Factors and Affordances for Reading

Themes	Categories
Motivational factors and affordances for reading	**Purposes** − Receiving good grades in reading − Improving L2 reading for academic and occupational purposes − Pleasure in reading something in English **Materials** − Materials which are reasonably higher than the learners existing knowledge − Reading texts and doing tasks which are compatible with standardized reading tests and tasks − Attractive and challenging tasks and assignments which can create fun − Authentic texts and real life language in L2 − Medium of resources or tools **Instruction, instructor** − Efficient reading instruction and regular practices in reading − Prior L2 reading instruction quality − Being evaluated by and receiving feedback from a qualified teacher − L1 reading habits and interests **Learners' needs and interests** Providing opportunity to: − reflect and focus on the needs and interests − taking responsibility of one's own learning and creating learning ownership **Learning situation** − Providing opportunity for: − encouraging problem solving, planning and self-assessing − higher classroom engagement and interaction − relaxed and close relationship with the teacher and peers

Purposes. Learners' perceptions of the motivational predictors and affordances perceived in reading indicated that receiving good grades in reading, improving L2 reading for their academic studies in future and pleasure in reading something in English were influential for creating motivation to read as the following excerpts show:

> *"When I feel my practices help to have a good performance in standard reading tests I feel more confident to continue"*
> *"Using reading for my future purposes (future study) keeps me interested"*
> *"I am not very interested in reading but it is required for success in my academic studies"*

Materials. Participants perceived the specifications of the materials (reading texts) to be effective and motivating. They preferred materials which were reasonably higher than their current level of proficiency and compatible with standardized reading tests. Moreover, attractive and challenging tasks and assignments which create fun and the authentic texts compatible to real life language in L2, were among other factors that were found to be motivating for reading based on the participants' reflections. Medium of reading (digital or on paper) was another factor perceived to create affordances with different patterns as the participants have mentioned:

> *"Attractive text and observable improvement in reading is motivating for me."*
> *"When the topic and the text content are interesting, it is motivating for me to read. When the reading text has higher level than my current level and introduces new word, it improves my vocabulary knowledge and reading ability."*
> *"I like interesting topics and when the topic is not new and the text is very simple reading is boring."*
> *"I have better feeling when I can write on paper, I use digital dictionaries. Digital texts can be used if we get used to apply them regularly in e-books, then finding words can be even easier..."*

A learner who enjoyed reading novels or stories in English stated, "*I do not like to read texts which are too complicated as they decrease my interest in reading because I like to read for pleasure and don't want to be interrupted too many times* (involvement) *and I want to be a successful reader* (grades)*."* As a brilliant learner, she wanted to be regarded as a distinguished one (recognition) by others.

Instruction, instructor. Instruction and instructor roles in creating learning situations were demonstrated to be predictive in reading performance. As shown in Table 2, efficient reading instruction and regular practices in reading, prior L2 reading instruction quality and appropriate evaluation and feedback provided by a qualified teacher were found to be determinant and motivational according to the learners' perception. L1 reading habits were also effective in L2 reading performance based on the participants' reflections:

> *"My experiences in L1 reading help me each session."*

> *"The points that my teacher tells us are helpful. She can increase our interest and motivation. I use her ideas and I have better performance. After writing reflection, I have concentrated on my reading more than before."*

> *"Teacher can increase my interest. When I can talk to her about my difficulties or interest I feel much better."*

Learners' Needs and Interests. Reflective learning affords appropriate learning opportunities based on the learners' needs. It creates learning ownership and learners have opportunity to take responsibility of their own learning. They reflect and focus on their needs and interests and can receive suitable feedback as the outcomes and consequences of their reflections and reading performance indicated:

> *"I read with planning. I want to improve my reading so I have decided to read more texts each week. I read and then take brief notes and collect the new words. I try to manage and record the time."*
> *"I read the texts which are interesting for me at home. I write the main ideas briefly and I look up new words. I am collecting the new words. I should continue reading regularly for better performance."*

> *"Dedicating enough time to think, write and talk about our problems helps a lot. We can determine our difficulties. I learned that reading can be improved by regular practicing and it needs plan and long time."*

Learning Situation. As the results of the study indicated, providing opportunity for encouraging problem solving, higher classroom engagement and interaction, relaxed and close relationship with the teacher and peers were among the affordances of reflective learning, which were motivating for the learners. One of the participants stated that she felt more at ease practicing reading in class with the teacher's supervision. She had also received advice from students who were successful English readers. Another one believed that reflective learning helped her to feel more relaxed, having enough time to concentrate on reading, and she encountered less negative sense toward reading in English. The learners enjoyed a pre-planned reading practice while they had enough chances to choose the text topics and practices. Learners had better relation with their teacher toward the end of the study. They had ample opportunity to talk to their teacher about their problems or difficulties. *"Learning new things always increases my motivation. It feels great I find and use a procedure by which I can correct my errors and solve my problems. Good classroom atmosphere and friendly relationships are so motivating,"* one of the participants mentioned.

Research Question 3: *What are the effective textual factors and affordances for reading based on the Iranian EFL learners' reflections?*

The third research question addressed the learners' perception of the features and affordances that affected their reading performance including sentence and textual features (Table 3).

Table 3
Learners' Perceptions of the Textual Factors and Affordances for Reading

Themes	Categories
Learners' Perceptions of the Textual features	**Sentence features** − Density of new words (vocabulary breadth) − Knowledge of shades of meanings (vocabulary depth) − Grammatical and structural complexity − Sentence length − Different forms of clauses **Text-related features** − Attractive topic − Topic familiarity and background knowledge − Text content − Text length − Text organization • Sentences roles and relations within and between paragraphs • Main idea and supporting ones − Writing clarity

Sentence Features. Sentence features encompass components including density of new words (vocabulary breadth), knowledge of shades of meanings (vocabulary depth), grammatical and structural complexity, conceptual complexi-

ty, length of the sentences, and the ability to recognize different forms of clauses.

> *"Vocabulary deficiency stops me and I lose my concentration and confidence because of it."*
> *"I think grammatical points are important but vocabulary knowledge is more effective."*
> *"I have a bad memory in remembering new words. I have started to collect the new words and put check mark next to them whenever I review ..."*
> *"Too long sentences with complex structures cause difficulty in inferring the ideas."*
> *"Being familiar with different sentence structures helps to infer the main points, relate the ideas and understand the text."*

Text-Related Features. Text features found to be effective consist of attractive topic, topic familiarity and background knowledge, text content, and text length as the participants referred to in their reflections:

> *"When reading has something to tell and its content is interesting or scientific I do better."*
> *"Reading long texts is boring specially when relations between the sentences and paragraphs are not clear."*
> *"When the text is a little above my proficiency level, I read better"*
> *"Topic familiarity helps me but it is not very effective."*

Text organization, writing clarity, and conceptual complexity of the text were mentioned as factors affecting the learners' reading performance:

> *"I learned to consider each paragraph's topic and concluding sentences. They help to manage the information and relate them together."*
> *"Ability to realize different clauses and phrases is helpful in understanding the meaning of the text and finding the main ideas e.g. relative clauses, adjective phrases ..."*
> *"Some texts do not have many new words or complex structures but they have ambiguous and complex concepts."*

Discussion

Learners' reflections were used as the main sources for analyzing the motivational and textual factors, determinants and affordances for reading. The first research question dealt with Iranian EFL learners' orientations of reading motivation constructs. EFL learners' motivation was investigated through administering the Motivation for Reading in English Questionnaire (MREQ). As the results of analyzing the questionnaire indicated, extrinsic motivation's mean score was slightly higher than that of intrinsic motivation. Extrinsic motivation contains external rewards (e.g., recognition), internal feelings (e.g., guilt), and societal values (e.g., importance) assigned to the target activity and intrinsic motivation includes the desire to engage in an activity for the enjoyment that it provides (Deci & Ryan, 1985; Ryan & Deci, 2000). Based on the Persian version

of MREQ, extrinsic motivation consisted of grades, recognition, compliance, competition, and social sharing dimensions and intrinsic motivation contained curiosity, involvement, and challenge. Among all the eight constructs, learners' motivation to improve their grades (extrinsic) and pleasure from being involved in reading a well-written text (intrinsic) was dominant among the other constructs while the social (extrinsic) dimension had the lowest mean score. It shows the participants' need and orientation toward learning opportunities including reading English for academic purposes and pleasure from reading, provide more motivational affordances than other dimensions. The results of this study reinforce the results of studies like those conducted by Komiyama (2013), Komiyama and McMorris (2017), Ro and Chen (2014), Cirocki and Caparoso (2016), and Xu and Durguno ğ lu (2019), in which intrinsic and extrinsic motivations have been used to orient the students' motivation to read both in L1 and L2. However, intrinsic and extrinsic motivations and their subdivisions have indicated different patterns of effectiveness.

The second research question dealt with Iranian EFL learners' perception of the motivational factors and affordances for reading including the motivational affordances of reflective learning. Analyzing the reflections confirmed again the emphasis on the dimensions like receiving good grades in reading and taking pleasure in reading something in English. The motivation constructs which fulfilled the learners' desires and academic needs and provided engagement in learning based on their needs created more positive affordances. Therefore, L2 reading texts reasonably more difficult than the learners' existing knowledge, and compatible with standardized reading tests and real life language in L2 were found be more desirable. Simple tasks with items, which create no challenge or fun were found to be boring and learners believed them to hinder their engagement or cause negative affordances. Another factor, which was found to be effective in creating favorable learning opportunities and creating more affordances, was reading instruction. It seems that the learners' attitude toward their prior L2 reading instruction, including the teacher's role and the materials, besides being accustomed to read in L1, can be motivating and influential. Learning processes like reflective learning which provides appropriate opportunities for the learners to reflect, focus on their needs and interests, and think deeply about their actions can engage the learners more and create more motivational affordances. The results indicate the multidimensional nature of motivation and L2 reading motivation, consistent with Ro (2016), Ro and Chen (2014) and Komiyama and McMorris (2017), while the learners' need may affect their motivation orientations and the pattern can be different in L1 and L2.

The third research question dealt with effective textual factors and affordances based on the Iranian EFL learners' reflections. The results of analyzing the reflections indicated that textual features like the topic, text organization, writing clarity and medium of the text were also found to be effective for reading performance and in creating affordances based on the learners' perception. The results are in accordance with the results of studies like the one done by Ghorbani Shemshadsara et al. (2019) who examined the effect of raising text structure awareness on learners' reading comprehension ability. The findings

are also in line with those of Dewaele (2010) who studied the affordances of background knowledge as well as Thoms and Poole (2017) who investigated three different types of affordances including linguistic, literary, and social affordances. The findings reinforce the results of studies like Soltaninezhad (2018) who emphasized the role of cohesive devices or discourse markers in reading and also Anjomshoa and Zamanian (2014) who demonstrated the positive effect of vocabulary knowledge. It seems that texts with fair amount of new words and rich content are more favorable.

Writing reflections let the learners think deeply about their learning process and afford the focus on different aspects of it. However, the learners' willingness to write, writing ability, and their familiarity with monitoring and assessing themselves and their learning based on their real self might have affected the participants' writing. Results of the study cannot be completely generalized beyond the mentioned population and similar studies can be performed for learners at different levels of language proficiency and those who read with different purposes.

Conclusion

Investigating the effective factors and affordances for reading including motivational and textual ones perceived by the learners in a learner-oriented process has been the main rationale for the present study. It was performed through analyzing the learners' reflections, which were written regularly. It was found that learners can reveal psychological and textual correlates, factors and affordances through writing semi-structured reflections which make the deep thinking possible and let them indicate their reading-related needs during the process of learning and helps the learners to make decisions for their future learning. The results of such studies give awareness of the effective factors for reading and main sources of difficulties that the learners may encounter. Reflections can inform appropriate feedback, materials, and efficient teaching methods and techniques to meet the learners' immediate reading-related needs. This helps to improve teaching and learning effectiveness. Learners who are proficient enough to write in English can improve their writing skill through writing reflection as well.

Further studies can be implemented for different populations including both male and female learners with different levels of proficiency to find the differences in the perceived and effective psychological and textual factors and affordances and their effects on language learning. Further studies may also focus on different textual features and contextual elements as well as different cognitive, metacognitive and motivational constructs. Future studies may apply different forms of reflections and prompts. Reflections and reflective learning can also be applied to investigate the effects of different media, especially affordances of mobile or computer assisted language-learning which can be applied through e-reflections.

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Appendix A

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باسمه تعالی

پرسشنامه انگیزه خواندن به انگلیسی[1]

لطفاً تمامی سوالات را به دقت مطالعه و با علامت «√» گزینه مورد نظر را انتخاب نمایید.

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۱. من دوست دارم به زبان انگلیسی بخوانم تا چیزی جدید در مورد مردم و چیزهایی که برایم جالب هستند یاد بگیرم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۲. من دوست دارم مطالب جالب زیادی به انگلیسی بخوانم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۳. وقتی راجع به چیزی جالب مطلبی به زبان انگلیسی می خوانم احساس خوبی دارم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۴. وقتی موضوع جالب باشد، مطالب سخت انگلیسی را با تمایل می خوانم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۵. خواندن در مورد چیزی که دوست دارم به زبان انگلیسی برایم سرگرم کننده و لذتبخش است.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۶. وقتی موضوعی جالب باشد، بسادگی خواندن آن را متوقف نمیکنم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۷. خواندن در مورد موضوعات جدید را به زبان انگلیسی دوست دارم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۸. وقتیکه ایده های پیچیده ای از مطالب انگلیسی یاد می گیرم ،لذت می برم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۹. دوست دارم موضوعی که می خوانم مرا به فکر وادار کند.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۱۰. دوست دارم هنگام خواندن خودم را به چالش بکشم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۱۱. از خواندن داستانهای خوب بلند به زبان انگلیسی لذت می برم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۱۲. مطالب انگلیسی چالش برانگیز و سخت را دوست دارم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۱۳. وقتی تکلیفی جالب است، راحتتر می توانم مطالب انگلیسی دشوار را بخوانم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۱۴. بعضی اوقات وقتیکه مطلب جالبی را به انگلیسی میخوانم، حساب زمان را از دست می دهم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۱۵. وقتی که معلم یا دوستانم مطلب جالبی می گویند، ممکن است بیشتر راجع به آن به زبان انگلیسی بخوانم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۱۶. دوست دارم به زبان انگلیسی بخوانم تا از دنیای اطرافم با خبر باشم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۱۷. دوست دارم سخت تلاش کنم تا بهتر از دوستانم بخوانم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۱۸. دوست دارم تنها دانش آموزی باشم که پاسخی در مورد چیزی که به انگلیسی می خوانیم ، می داند.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۱۹. دوست دارم معلمم بگوید که من بخوبی به زبان انگلیسی می خوانم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۲۰. وقتی که تکالیف خواندن را برای کلاس کامل می کنم سعی می کنم جوابهای درست و کاملتری نسبت به همکلاسیهایم بیابم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۲۱. وقتی به انگلیسی می خوانم، دوست دارم تکالیفم را قبل از بقیه تمام کنم.

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[1] ترجمه شده از پرسشنامه انگیزه خواندن به زبان انگلیسی (MREQ) (Komiyama, 2013)

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۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت از من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۲۲. دوست دارم همکلاسیهایم بگویندکه بخوبی به زبان انگلیسی می خوانم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۲۳. دوست دارم در خواندن به زبان انگلیسی بهترین باشم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۲۴. وقتی بعضی همکلاسیهایم بهتر از من می خوانند، ترغیب می شوم تا مطالب انگلیسی بیشتری بخوانم (بیشتر تمرین کنم).

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۲۵. وقتی معلمم از من می خواهد تا بلند به زبان انگلیسی بخوانم احساس خوبی پیدا می کنم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۲۶. دوست دارم نظرات خوبی در مورد مهارت خواندنم بشنوم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۲۷. وقتی می خوانم، اغلب به این فکر می کنم که در مقایسه با دیگران در خواندن چطور عمل می کنم .

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۲۸. من خواندن به انگلیسی را تمرین می کنم، زیرا وقتی به سوالات معلمانم پاسخ می دهم احساس خوبی دارم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۲۹. وقتی دوستانم از من در تکالیف خواندن کمک می خواهند احساس خوبی پیدا می کنم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۳۰. اتمام بموقع تکالیف خواندن برای من مهم است.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۳۱. معمولا سعی می کنم تکالیف خواندن را به موقع تمام کنم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۳۲. کسب نمره خوب و داشتن سطح خوب در خواندن برایم مهم است.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۳۳. تکالیف خواندن را درست مطابق آنچه معلم از من می خواهد انجام می دهم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۳۴. برای دانستن اینکه چه نمره ای در خواندن می گیرم مشتاقم و انتظار می کشم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۳۵. دوست دارم تا برای بهبود نمراتم درمهارت خواندن بیشتر بخوانم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۳۶. وقتی که تکالیف خواندن نمره گذاری می شود، بیشتر تلاش می کنم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۳۷. تلاش می کنم تا در خواندن انگلیسی مهارت پیدا کنم تا در آزمونهای استاندارد نمره خوبی کسب کنم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۳۸. برای پیشرفت خواندن به انگلیسی تلاش می کنم چون دوست دارم نمره مهارت خواندن در آزمونهای استاندارد پیشرفت کند.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۳۹. خواندن به زبان انگلیسی را تمرین می کنم چون می خواهم نمـرات خوانـدن بـالاتری نسـبت بـه دوسـتان و همکلاسـیهایم در آزمونهای استاندارد کسب کنم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۴۰. بر روی مهارت خواندن کار می کنم زیرا لازمه عملکرد خوب در کلاسهای آتی من است.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۴۱. از اینکه برای دوستانم در مورد چیزهایی که در مطالب انگلیسی می خوانم حرف بزنم لذت می برم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۴۲. من و دوستانم مایلیم آنچه که می خوانیم را به اشتراک بگذاریم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۴۳. دوست دارم با دوستانم در مورد آنچه که به انگلیسی می خوانم صحبت کنم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

۴۴. من دوست دارم در بحثهای کلاسی در مورد آنچه می خوانیم شرکت کنم.

۱.خیلی متفاوت با من ☐   ۲. کمی متفاوت با من ☐   ۳. کمی شبیه من ☐   ۴.خیلی شبیه من ☐

Appendix B
Semi-Structured After-Reading Reflection Sheet

Name:	Reading passage:	Reflection number:

م ت	**Note, comment, or plan for the next session.**	
1	What was your goal and planning before beginning to read?	
2	What were the main ideas? (The whole text and each paragraph)	
3	How did you read and get the main points? List some of the activities you did during reading. Were they effective?	
4	What did you do when you did not understand one part? (one word or a sentence)	
5	How well did you read? Analyze your performance including your difficulties and possible solutions.	
6	What were your strengths and weaknesses in reading?	
7	What was effective in your reading?	
8	How did you feel during reading?	
9	What or who helped, encouraged or motivated you to read?	

The Role of Pragmatic Strategies in Interrogation in Legal Discourse: The Case of Shiraz

Research Article

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Farideh Haghbin*[2]
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Abstract

Questions are the most important and the most common feature of legal talk. Questioning is the weapon that is used to test or challenge statements made by lay people and it is considered as a tool to make accusations. Based on syntactic and formal features of questioning, which are important parts of any linguistic analysis, questions are categorized into two classes: closed and open questions. The criteria for choosing one form over the others is determined by pragmatic factors. In other words, the questioner chooses one form of questions on the base of pragmatic strategies that s/he adapts during questioning. This article is dedicated to exploring the crossroads where structural and pragmatic features of questions come together to achieve this goal. To this end, we combined

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two quantitative and pragmatic approaches. The data of the present research was gathered from four cases during interrogation processes in the court of Shiraz. The research findings indicate that pragmatic strategies determine the types of question forms and, also, closed questions have the most application in the interrogation process because they have a high level of control that can challenge the addressee's statements.

Keywords: forensic linguistics, legal talk, questioning, question forms, pragmatic strategy.

Introduction

Forensic linguistics in a simple definition is an attempt to explore the way relationships between people in legal contexts are constructed through language. "Few professions are as concerned with language as is the law" (Tiersma, 1993). "Our law is a law of words" (Tiersma, 1999, p.1). So, what we are dealing with in forensic linguistics in general is the analysis of legal writing or legal talk. The present study focuses on legal talk in interrogation, specifically questioning in trial. As Holt & Johnson (2010) point out, questions are important because they are mainly used in a range of forensic setting such as police interrogation, attorney/lawyer and client interactions and judge and defence/ accused/ witness during examination and cross-examination in court. Danet (1980b) argues that questions are weapons that are used to challenge statements made by people such as the witness or accused (or lay people in general) and describes questions as means to make accusations. Gibbons (2003) considers questioning in two aspects. One deals with the elicitation of information and the second one is to obtain confirmation. "The first type - real information gathering - is in a sense 'unmarked', it is what we normally assume when the topic of questioning is raised" (p. 95). Cooke (1995, p. 73) describes the questioning in a trial as a strategy used by the questioner in order to negate or discredit answerer testimony. It also serves to challenge answerer's personal credibility.

Two important parts or aspects of questions that must be considered during linguistic analysis of any kinds are formal and syntactic features of questions. The two mentioned features are important parts of any linguistic analysis. In a widely accepted categorization of questions, they are divided into open and closed questions (Huddleston & Pullum, 2002). Open questions are Wh-questions (e.g. 'What is it?'), and generally seek for information from the addressee. Closed questions are alternative questions ('Is it black or white?'), yes/no questions ('Is it black?'), tag questions (e.g. 'It's good, isn't it?') and declarative questions ('This is it?'). Besides their information-seeking role, closed questions are used for seeking confirmation from the addressee. Such classification of questions rests on the formal features of questions or their syntactic structure, and the type of answers expected (Tkačuková, 2010).

Our focus in the present study is not only on form, but also on pragmatic use of questions during interrogation. For this purpose, questions will be discussed according to pragmatic strategies. Gibbons (2003) distinguishes between idea-

targeted and person-targeted pragmatic strategies. Idea-targeted pragmatic strategies challenge the content or statements of the answerer, whereas person-targeted pragmatic strategies tackle the personal characteristics of the answerer. Although Gibbons lists some strategies for each of person-targeted and idea-targeted tactics, in fact, the boundary between these two is so overlapping that a strategy (from each one) can be used to target both character or statement of the addressee. Based on the topics discussed in this article, the authors seek to answer the following questions:

1) What makes the interrogator choose one form of question over another?
2) How can the interaction between structural and pragmatic aspect of questions best be captured?

It should be noted that the data of the present study are recorded from the interrogation of four cases in the magistrate's court of Shiraz.

Review of Literature

Linguistic research on interrogation questioning (or cross-examination in courts) falls into several approaches (such as quantitative, qualitaive, pragmatics, CA, CDA, etc.) towards different question types. Danet & Kermish, (1978), Danet, (1980a, 1980b) have developed a typology of question forms according to the degree to which they coerce or constrain the answer in disputing in legal process: declaratives, interrogative yes/no, open-ended. Declaratives, also called prosodic questions in Woodbury (1984), as the name suggests, have the declarative form and include question hints that may be intonational, or are followed by a tag question or other contextual cues ("You didn't return home that night, did you?"). Danet (1980a) believes declarative are the most coercive because they tell more than they ask. Interrogative yes/no or choice questions call on the answerer to consent or deny the proposition expressed by the questioner ("Did you do it? / Did you leave at nine or at ten o'clock?"). Open-ended questions include wh-questions (who-what-where-when-why questions: "What did you do that night?"). He also considers "requestions" as the least coercive and most indirect and polite that superficially inquire about the witness's willingness or ability to answer but indirectly request information ("Can you tell us what happened?")

Woodbury (1984) adopts a quantitative approach and concerns the coerciveness existing in the formal or syntactic structure of questions. She explores the distribution and pragmatic properties of question-types in courts. She believes that a questioner in interrogation or trial has two main objects: 1) controlling and considering the proofs or testimony the jury obtains from the answerer, 2) supplying the output of current information appropriately in context. To meet these two objects, question-types should be selected strategically. She also divides question types into six categories structurally as broad wh-questions, narrow wh-questions, alternative questions, grammatical yes/no questions, negative grammatical yes/no questions, prosodic questions, and tag questions (see Figure 1). She uses the notion of 'control' to refer to the degree

to which the questioner can impose his own interpretations on the evidence and takes the control of the interrogation by using the more controlling question type.

Figure 1
Continuum of Control, (Adapted from Woodbury, 1984)


```
                              Least Control
Broad wh-questions
Narrow wh-questions                  |
Alternative questions                |
Grammatical yes/no questions         |
Negative grammatical yes/no questions|
Prosodic questions                   |
Tag questions                        ↓
                              Most Control
```
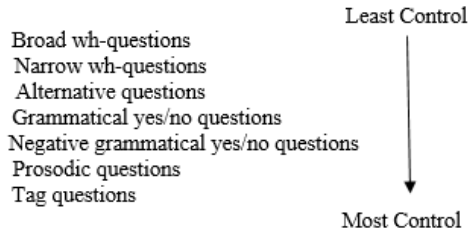
Woodbury (1984) finally represents the function of each types of questions in court cross-examinations. For example, she claims that the questioner can elicit a story or narrative version of events by using broad Wh-questions, she/he uses narrow Wh-questions for checking consistency, and applying yes/no questions, the questioner forces the answerer to word the evidence or give a fragmented reply, etc.

In a similar vein, Harris (1984) views questions as a means of control in trial or the same situation like magistrates' courts and examines the occurrence and distribution of questions in court discourse. She considers utterances as questions a) with interrogative syntax (polar, disjunctive, tags and WH-interrogatives), b) moodless items (items with level or rising pitch), and c) declaratives (B-event information and confirmation which can be frameless or with a frame). She points out that questions in a court are information seeking or the means of making an accusation. These two functions are often overlapping. She proposes three components of "propositional content, context, and syntactic form" (p. 9) which all contribute to the relationship of questions to specific functions, though in varying and relative degrees. She also considers that highly conducive forms of questions (e.g. tag questions) are prevalent in a courtroom situation and they employ both to obtain information and to accuse particular forms.

Luchjenbroers (1997) studies barrister questioning strategies in Supreme Court murder trial (sixty different barrister-witness dialogues) based on variables including: (1) legal phases, (2) kinds of witnesses, (3) question types, and (4) answer types. The findings from this study show that witnesses provide not much informational input to the jury and show what little scope witnesses have in affecting a barrister's line of reasoning, and also give real evidence that not all witnesses are treated equally during either phase of testimony.

Heffer (2005) pays attention to narratives constructed by the interactors in judicial process. He claims questions and responses together contribute to

make narratives by interlocutors in a trial discourse (for example prosecution and defense). He explains how Wh- questions are used to elicit narratives while most of such questions in trial interaction or in police interrogation are used to ask for certain information.

Tkacˇuková (2010) tries to show how lay people represent themselves in cross-examination by questioning strategies in a trial. Steel and Morris (the defendants as lay people) were accused in a writ by McDonalds UK and US (the plaintiffs) of bringing to public a booklet which accused McDonalds of weak practice in relation to some parts. The two defendants (litigants-in-person) did not have any previous experience of judiciary discourse or legal proceedings, and they were confronted with an expert lawyer representing McDonalds (Mr. Rampton QC). Tkacˇuková (2010) first adopts a quantitative approach towards different question types and categorizes them to the most important formal question types: wh-questions, yes/no questions, declarative questions, and tag questions, then tries to relate question forms to pragmatic strategies. As she points out, "It is a strong understanding of the interaction between meaning, context, and communication that helps counsels to corner witnesses effectively" (p. 339) and relate the two inseparable parts of cross-examination question forms to pragmatic strategies. The author follows Gibbons' (2003) differentiation between idea-targeted and person-targeted pragmatic strategies and tries to show the differences between the counsel and the lay litigants-in-person in the use of pragmatic tactics. The other studies that focus on language in legal process are as follows Coulthard et al. (2017), Archer (2005), Matoesian (2005), Shuy (1987), and Harris (1984).

Among the researches that have been done on the relation between interrogation process and linguistic devices in Iran, some of them are worthy to note. Najafi & Haghbin (2019) have examined questioning in the interrogation process. They categorize the types of interrogation forms as follows: broad wh-questions, narrow wh-questions, alternative questions, yes / no questions, declarative questions, and affirmative questions (Figure. 2).

Figure 2
Questions Classification from Najafi and Haghbin (2019)
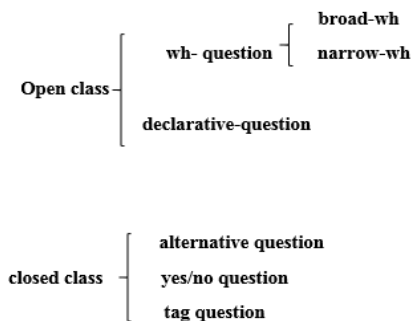
They have also taken into account the pragmatic role of the "controlling" in the investigations. The analysis confirms that the distribution of question types in the interrogation discourse differs significantly from one another in that, among the six types of question forms, narrow wh-questions and broad wh-questions respectively are most frequently used and are the least controlling (Figure. 3). This can be attributed to the context and the space of the interrogation phase, where the investigator intends to gain as much information and evidence as possible for the subsequent trial process. Other findings of this study also indicate that the declarative questions that generally fall into the category of close questions in most of the studies are classified as open questions.

Figure 3
Continuum of Control, Adapted from authors (2019)
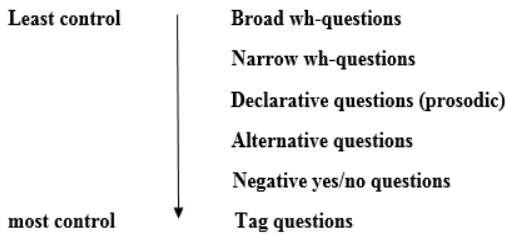
Haghbin et al (2016) studied the role of "narration" in the space and the discourse of the court (based on twenty-six criminal cases in all three stages of the police station, public prosecutor's office, and the court of Shiraz). They emphasized the complex nature of the genre of the trial space and finally represent a pattern of trial discourse, as shows in Figure 4, which is consisted of complex genre. By the use of complex genre, the authors meant to use narrative with anti-narrative genres together.

Figure 4
A Model of Jury Trial as Complex Genre
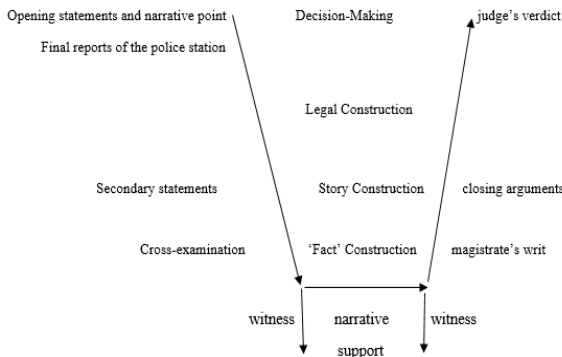
Najafi & Haghbin (2020) also examine a variety of verbal strategies in interrogation. They include verbal strategies such as *question formulation*, *repeated questioning*, *quotation marks*, *contrasting*, *the use of the phrase "khob" as a discourse maker marker*.

Razavian & Jalil (2018) have studied the spoken features of the robbery defendants in court. They attempted to explore the discourse of robbery defendants in the judicial system from the forensic linguistics' point of view. Their findings show that the defendants, by using many linguistic principles such as high modality, activism deletion, infelicitous utterance, and illocutionary act, try to gain interrogators confidence and also use linguistic principles differently, and finally, the authors give the distribution and percentage of each principle. Results suggest that paying attention to linguistic features like low modality, contradiction in speech, activism deletion, presupposition, implicature, middle voice construction, and Gricean cooperative principles can help investigators and judges in crime detection.

The other researches that concern language in legal discourse in Iran are as follows: Rovshan & Behboudi (2009), Momeni (2011, 2012), Momeni & Azizi (2011, 2015).

Theoretical Framework and Methodology

The data of the present research have been gathered from four cases during the interrogation process in the court of Shiraz. After recording the interrogation process in court, the authors analyzed the question forms and classified them in six categories (quantitative analysis). Then based on pragmatic strategies, it was attempted to make a relation between question forms and their distribution with pragmatic criterion.

Quantitative Analysis of Question Forms

A widely accepted typology of questions based on syntactical and structural features of questions (Biber et al., 1999; Huddleston & Pullum, 2002; Woodbury, 1984;) is the categorization of questions into open and closed questions. Open questions consist of Wh-questions whereas closed questions include alternative questions, yes/no questions, declarative questions, and tag questions. According to Woodbury (1984), Wh-questions are divided into broad Wh-questions and narrow Wh-questions.

Broad wh-questions: The questioner chooses broad wh-questions (which have the least amount of controlling among wh-questions) when s/he tries to extract new information from the addressee. Such questions have a range of possible answers. They include wh-words such as how, how, why, etc. which generally demands long answers which often have a narrative structure. (M: magistrate, D: defendant)

1) M: *Chetor serghate mosalahane tala va javaherat ra anjam dadid?*

How did you commit the armed robbery of gold and jewelry?

D: *Man Yasuj budam. Man ahle Gachsaranam. Abbas Rad zang zad va goft bayad berim Shiraz, Kurosh barash ye moshkeli pish umade.....*

I was in Yasuj. I am from Gachsaran, Abbas Rad called and said that we should go to Shiraz, Kurosh is in trouble

Narrow wh-questions: these kinds of questions elicit details which are scene setting (time, place, participants, etc.).

M: *Che mashini? Ba che vasilei?*

What was the car? By what means?

D: *Azera bud.*

It was an Azera car.

M: *Mashin male ki bud?*

Whose car was it?

D: *Male yeki az dustam.*

The car belonged to a friend of mine.

M: *Ranande ki bud?*

 Who was the driver?

D: *yeki az dustam be name Ahmad Zarrinfard.*

One of my friends was named Ahmad Zarrinfard.

Alternative questions: They are placed between yes/no and wh-questions. The addressee is limited to choosing between two or more options.

M: *Nemiduni mikhast bekhare ya nakhare?*

Do you know if he wanted to buy or not?

D: *Agar be man gofte budan ghasd kharid dashtan hala nakhardide dige man nemidunam.*

If he had told me he was going to buy it, now, I don't know if he buys it or not,

M: *Na be shoma goft ghasde kharid daram ya nadaram?*

No. Did he tell you he was going to buy it or not?

D: *Bale goftesh goft mikham.....*

Yes, he said. He said he wanted to

Yes/no questions: They ask the addressee to agree or disagree with the statements made by the speaker.

M: *aya shahede dargiri Abbas ba Masoud va shakian budid?*

Did you see Abbas and Massoud clash with the plaintiffs?

D: *Na man nadidam. Man didam kurosh yeki az shakian ro zad.*

No, I didn't see it. I saw Kurosh hit one of the plaintiffs

Prosodic questions (also called declarative questions): They are declarative sentences including question hints that may be intonational. The speaker's point of view represented by a prosodic question. the speaker believes in the truth of the proposition in prosodic question. . See Figure 5 for the distribution of question types in the data.

M: *shoma ke gofti in khanumo hich vaght tu Chamran nadidi.*

You said that you have never seen this lady in Chamran.

D: *Migam dige faghat ye bar tu Chamran didamesh, ye chandta massage bude….*
I have told that, I saw her onec in Chamran, it was just a few massage…

Figure 5
Distribution of Question Types in Interrogation
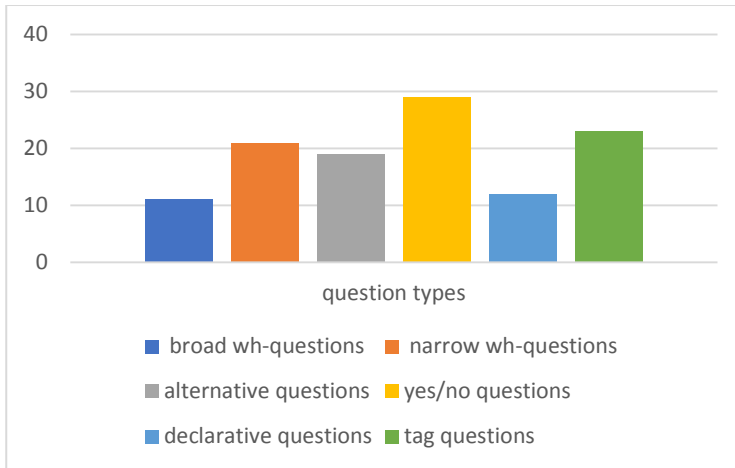
Figure 5 shows that the total number of closed questions is more than the open questions. This can be due to the more controlling feature of closed questions. The question that arises here is: "what makes the interrogator prefer the choice of a question form over other question forms?". The authors believe that the reason for preferring a linguistic form over others is determined by the pragmatic criterion. According to Gibbons (2003), the interrogator uses pragmatic strategies which are called person-targeted and idea-targeted. The first one triggers personality of the lay people (defendant, witness, plaintiff, etc.), and the second one targets their statements and challenges them in court.

Pragmatic Strategies in Using Question Forms

Gibbons (2003) makes a distinction between idea-targeted and person-targeted pragmatic strategies. As he points out:

> One category consists of tactics that influence or discredit testimony by shaping perceptions of the person giving the testimony, often by enhancing or diminishing their credibility ('person targeted'). The other category is targeted at the portrayal of events itself (`idea targeted'). The boundary between these two categories can be fuzzy, and there are times when they are entwined, but it can still be useful to ask whether it is the message or the messenger that is being supported or undermined (p. 139).

Each category consists of some strategies or tactics and illustrates the range of linguistic devices used in questioning.

Person-Targeted Strategy. Status manipulation: Rather than attacking and challenging the content of the witness's testimony, this strategy attacks the witness's character or personality for two purposes. As Gibbons states, "It may serve to portray the witness as in some way unreliable: It is an attack on credibility. Alternatively, particularly if the person subjected to this strategy is the plaintiff or defendant, it may render them more worthy of their plight or punishment, thereby changing the portrayal of events" (p. 140).

Address forms: Another person-targeted strategy is the tactical use of address forms. For example, Bulow-Moller (1991, p. 43) mentions that a photography expert is addressed as Mr. Kirk by the prosecution, but as Sergeant Kirk by the defence, in order to highlight his status as part of the 'system'.

Personal pronouns: Using personal pronouns is a means of closing or increasing communicational (or social) distance between interlocutors in cross-examination in trials. Brown & Gilman (1960) say the effective use of pronouns gives rise to solidarity and inclusiveness or to effect distance and exclusiveness. O'Barr (1982, p. 37) suggests that 'we' can be used to a jury to appeal to common values; that 'you' can be ambiguous between collective jury and individual members, so they may feel personally addressed; and that 'they' can be used to refer to an unknown or external group, marking them as social outsiders. He gives this example of the repeated tactical use of 'you'.

Contrast: Drew (1990, 1992), by exploring features of witnesses' answers and lawyers' (or attorney) questions, describes a technique by which a questioner (lawyer or attorney) tries to create contrasts between claims made by the answerer that seem to make them contradictory and weaken their reliability. For example, he notices when conflicting a version of stories or events offered in the questioner's questions, the answerer can use contrast to refrain from giving explicit correction preceded by 'No'. By suggesting a substitute version, the answerer lessens the risks associated with disagreement (Holt & Johnson, 2010).

Distorting modality and the infallibility trap: This strategy concerns the ways that the interrogator (police, attorney, counsel, etc.) tries to take advantage of modality in addressee's claims. As Gibbons (2003) points out, it may involve attempting to force a witness (defendant) to express certainty about something that is best left modalized (e.g. 'Please answer yes or no'), or else the witness's modalizations may be distorted as vagueness or full uncertainty. Bulow-Moller (1991, p. 55) says, "The witness can be made to appear evasive, unsure, or ... ludicrously over-confident," which is called the 'infallibility trap'.

Accommodation: In general, it deals with changes that people impose upon their language to be more like their addressee's language. As Giles and Powesland (1975) state accommodation makes people language more like that of an interlocutor in order to reduce social distance, or make their language less

similar in order to increase social distance. This may involve a change in style or accent, or a switch to another language (Gibbons, 2003).

Turn taking: Levinson (1992, p. 86) defines turn taking as follows, "Allocating fixed questioner/answerer roles shapes a turn-taking system that permits the questioner to take the control of interaction during cross-examination in trial". Kryk-Kastovsky (2000) considers turn-taking as a feature of 'orality' which is closely related to spoken language as responding to the interlocutor, power relations, and the use of performatives and discourse markers. She investigates the turn-taking tactics used by the two groups of interlocutors in trial discourse who confronted with each other on opposite sides of the bar, what she calls the 'interrogators' (who normally control the turn-taking) and the 'interrogated'.

Exploiting bias: Gibbons (2003) gives no complete or exact definition (or any documentation) of this strategy. All he states is "I have observed counsel deliberately exploiting the cultural and ethnic biases of jurors" (p. 172).

Idea-Targeted Strategy. Vocabulary choice: Heffer (2005) believes strategic choice of words plays an important role during interrogation because the effect of guilt or innocence constructs gradually through ongoing clause-internal evaluation is powered by the technical use of words. Loftus (1979, p. 74) claims that even small differences in wording can affect the meaning or content of answers, and also the memory of events. She says the exact questions asked during the interrogatory are central, since small changes in their wording can result in different narrations of events or answers. Follow this point, Danet (1980) explains how, in a manslaughter trial, the opponent side construct an alternative version of the same reality; an unborn child was referred to as 'fetus' and 'embryo' (detached medical terms) by the defence, and as a baby boy (emphasizing the potential future life) by the prosecution. Gibbons (2003) believes that this is because the death of a fetus is less likely to worth a verdict of manslaughter than the death of a baby, so by the use of vocabulary, the same act was depicted as a not punishable offence by a word choice.

Hedging: Many researches (e.g. Jacquemet, 1996; O'Barr, 1982) consider hedging (such as: maybe, allegedly, apparently, almost, approximately, about, conceivably, generally, arguably, likely, etc.) as a feature of the language of doubt or uncertainty. Heffer (2010) also states that a weak answerer, unlike powerful ones, uses some features in his/ her speech that represents an unreliable witness. These features include hedging, hesitation, intensification, etc.

Repetition: O'Barr (1982, p. 36) confirms the usefulness of using repetition to emphasize on something in speech but he also points out that it should be used with care. Questioners (lawyer, attorney, counsel, etc.) may repeat their own questions for different purposes. Maley & Fahey (1991) give a number of examples of hostile counsel repeating questions, and they suggest that the purpose is to make some incongruity between replies to the same question which can then be used to distrust the answerer. It can also serve to put pressure on

the answerer and underscore the counsel's mistrust of the answer (Gibbons, 2003).

Reformulation: This strategy normally is used by questioners (lawyer, magistrate, attorney, etc.) to sum up, giving a 'gist' or 'upshot' of what was said. Gibbons (2003, p. 175) says, "sometimes, the reformulation is flagged by the use of linguistic signals such as: in other words; so, it is true to say that; so, you're saying that"; and the markers demanding for more clarity in replies. Watson (1990) also describes 'so' as a reliable device used by the police or any questioner to reformulate the 'gist' of an addressee's previous long replies or narration of events.

Reformulation as a speech act label: This strategy explains a situation in which witness's statement is reformulated by means of a speech act label (*lied*). For example, when the questioner reformulate his/ her question as follows: 'Are you suggesting that the expert witness *lied* to the court?' where a witness had queried the accuracy of an expert testimony. Here the reformulation with 'lied' puts the witness in a difficult spot said by Gibbons (2003). Gibbons also states that using a speech act label in reformulating questions (by questioner) casts doubt on the credibility of the witness's testimony.

Presuppositions: Presupposition is a well-known and well-defined topic in semantics. Lambrecht (1994) gives the following definition of pragmatic presupposition:

The set of propositions lexicogrammatically evoked in an utterance which the speaker assumes the hearer already knows or believes or is ready to take for granted at the time of speech (p. 52).

Gibbons (2003) believes using presupposition as a tactic has the potential to confuse witnesses and misguide hearers by inserting as given content something that is new or disputed. While many researches (e.g. Archer, 2005; Woodbury, 1984) consider yes-no questions as the most controlling, Ehrlich (2010) states questions with presuppositions more controlling than yes-no questions. She clarifies the contrast between the questions with and without presuppositions in (2) and (3) (from less "controlling" to more "controlling").

(2) Yes/No questions without presuppositions, for example; she had argued with you, didn't she?

Example (2) presupposes that the addressee had argued with some woman.

(3) Yes/No questions with presuppositions, for example; when she had argued with you, she said something to you, didn't she?

Example (3) presupposes that the addressee had argued with a woman.

Natural narrative structure: O'Barr (1982) considers narrative versus fragmented testimony as a linguistic variable (as they are aspects of the power of speech style in the courtroom) in his study on "law and social control". He argues that answers which are narrative are more convincing than fragmented ones. And to keep high control over answerer during cross-examination, s/he

should have more opportunity to give longer narrative version of their testimony and as Gibbons (2003, p. 123) says, "Lawyers follow *natural narrative structure* to help the jury follow the `story' - in other words they use a story-like structure, particularly in summing up after testimony, in order to naturalize their version of events". Sometime after giving a strong or complicated narrative (by the witness or lawyer), the questioner (as opposed lawyer, attorney, etc.) may narrow down it to short phrases and use unnatural narrative orders to elicit inconsistent answers from hostile witnesses by disrupting their schemas and prepared stories. The lawyer may also use a series of questions which limit the response (usually yes-no questions) to accumulate a portrayal of events that is not that of the witness, yet which the witness is not given the opportunity to challenge.

Negative suggestions: This tactic is used when a witness is hostile and reluctant to tell the truth. In this situation, the questioner asks the reverse of what s/he wishes to discover. For example, if you want him/ her to say it was dark when the murder took place, ask him/ her if it was not true that it was light when the murder took place. S/ he is apt to say, "No, it was dark."

Three-part structures: On studying the techniques that the questioner may use in trying to challenge the answerer's version of events, Drew (1990) suggests 'three part structure' strategy. As he states, this tactic is the use of a *three-part list* to describe scene setting component or interlocutors in events, and gives the following example:

C: Mr R. had the audacity to stand up here and tell you about the most serious crime in Florida, in the United States, and in the Bible, the Bible which says THOU SHALT NOT KILL!

Gibbons (2003, p. 125) also considers 'Three-part structures' as a device which is used to cast doubt on exactness of statements:

> C: all right, what speed did your speedometer register?
> W: it was thirty-five
> C: Exactly 35?
> W: That's right
> C: Not 36 or 34?

Evaluative third parts: Sinclair & Coulthard (1975) suggest that questioning is not merely a two-part 'question-reply' structure, but there is a third part in which the questioner normally evaluates the reply. The evaluation can be speaker-argeted ('good girl') or idea-targeted ('that's right'). Berry (1981) has also pointed out that such third parts are frequently found in situations of unequal power (such as doctor-patient consultations and business meetings). In such contexts, evaluation is usually idea targeted, since the evaluation of adults may lead to a face-threatening action.

Timing of speech rhythm and pace, interruption, silence: O'Barr (1982) argues that some features of speech as rhythm and pace, interruption, and silence can play an important role during the trial process. He proposes the following

techniques of timing of speech for both lawyer and witness as follows (Table 1). O'Barr focuses on meaning and interpretation of silence in adversarial discourse. He points that silence can be investigated according to some aspects; the first one deals with legitimate feature of silence which is the right to stay silent, the result of avoiding to obey the usual rules regarding silence in courts, and the matter of "silencing" the official record. The second one considers the focus shifts to the interactional level. For example, the interaction between the lawyer and the witness includes several types of silence that differ in terms of results. Finally, the means of resolving the uncertainty of silence and the strategies for attempting to manage its interpretation in the courtroom conflict needs to be investigated.

Interruption: Tt refers to the situation when the questioner interrupts the answerer's talk. (In the following example the sign ✖ represents the interruption)

> M: *In tika ro motvaje nashodam, che jur umad tuye khune filmhaye arusie to ro dozdid?*
> I didn't understand this part, how did he come to the house and steal your wedding videos?
> D: *Vaghti klas budam, rafte budam klas vase gavahiname*
> When I was in class, I had gone to class for driver's license ✖
> M: *Khob chetor umade dakhel?*
> Well, how he came in?

Results and Discussion

> In the present section, an extract of each cases will be analyzed:
> Case 1.
> 1 M: *In khanum ro az koja mishnasi?*
> How do you know this lady?
> 2 D: *Man in khanumo nemishnasam, mavadforush nabudam, hich jorme kerifari nadaram.*
> I don't know this lady. I wasn't a drug dealer. I don't have any criminal offenses.
> 3 M: *Pas gofti in khanumo nemishnasi?*
> So you said you don't know this lady?
> 4 D: *na*
> No
> 5 M: *Serie ghabl ke gofti mishnasamesh.*
> But last time you said that you know her.
> 6 D: *Na aslan*
> Not at all
> 7 M: *Gofti un moghe kenar daste man neshaste bud.*
> You said she was sitting next to me at the time
> 8 D: *Man unja neshaste budam goftam behetun, unja neshaste budam nemishnasamesh, ba ham sohbat kardim.*

I was sitting there and I told you I was sitting there, I don't know her, we talked

9 M: *Yaani tu Chamran kenar daste to nashaste bud?*

You mean she wasn't sitting beside you in Chamran?

10 D: *Jan?*

What?

11 M: *Tu Chamran kenar daste to nashaste bud?*

Wasn't she sitting beside you in Chamran?

12 D: *Chera, kenare ham ru nimkat neshaste udim hata tu hamun komite akhlaghi ham goftan ke ma ro be khatere hichi….*

Yes, we were sitting on the bench next to each other. Even in that ethics committee, they said to us that it wasn't for ethical issues.

13 M: *Shomare shoma ro az koja ovorde?*

Where did she get your number?

14 D: *Shomare man ro az koja avarde? Yadam nemyad ba ham dige hala dar hade sms dust budim.*

Where did she get my number? I don't remember, we were just about pen pal.

15 M: *Shomarato az koja avarde?*

Where did she get your number?

16 D: *Shomaramo…. khodam behesh dadam…are khodam behesh dadam.*

My number…. I gave it to her, yes, I gave it to her

17 M: *Shoma ke gofti in khanumo nemishnasi.*

You said you didn't know this lady

18 M: *Koja (shomare dadi)?*

Where (did you give your number to her)?

19 D: *khiabune Qodusi …hamun vara.*

Qodusi street …just around there.

20 M: *shoma ke gofti in khanumo hich vaght tu Chamran nadidi.*

You said that you have never seen this lady in Chamran.

Case (1) is about a man and a woman who have been arrested for buying and selling drugs. During the initial interrogation, the woman confessed that the drugs belonged to her and the man was released. But after a day in detention, she confessed that the drugs belonged to the man. During interrogation in magistrate court, the man did not admit that he knew the woman, and the magistrate tried to make him tell the truth. The magistrate tries to target the defendant's statements and challenge their correctness. In (1), the magistrate asks a question which is a broad wh-question (*How do you know this lady?*). This question has a presupposition in it that the defendant already knew the lady, but the defendant doesn't give an expected answer and the magistrate has to repeat his question. In this type of question which is called "repeating question", the interrogator deliberately tries to use the defendant's words and phrases in the form of quoting himself (*So you said you don't know this lady).* These questions mostly begin with "*pas*/so" and "*gofti*/you said". Holt & Johnson (2006) mention four frequent features of repeating questions: 1) They are usually prefaced by "so"; 2) Their structure is not like a question form (gram-

matically); 3) They repeat elements of the answerer's statements and normally bring several elements together; 4) They ask for confirmation.

The magistrate uses declarative forms (the last time you said that I know her/ You said she was sitting next to me at the time) in lines (5) and (7), respectively, and contrasts the defendant's previous statements with his current statements to reveal the contradiction between his statements and represents some quotes from the defendant himself which have been recorded. He then, in lines (9) and (11), uses the presupposition tactic and asks yes/no questions which include a presupposition (*didn't she sit beside you in Chamran?*) that makes it difficult for the defendant to deny it (being in Chamran street), and in response, the defendant admits that he was sitting on a bench next to the woman. Questions with presuppositions are very controlling and Ehrlich (2010) considers them as more controlling than yes-no questions, suggesting that they cannot be easily denied by the addressee.

In line (13), the magistrate asks a narrow wh-question (*Where did she get your number?*) but the defendant doesn't give an appropriate answer and in line (15), the magistrate asks the question again. This kind of repeating question without any change in its form shows the questioner's insistence on what s/he wants to get and it has a high rate of coercion and forces the defendant to provide a clear answer.

The magistrate also uses strategies that target the defendant's personality. For example, the alternative use of the personal pronouns "*to* (second person, singular)" and "*shoma* (second person, plural)" can be mentioned. This distinction is corresponding to tu/vous in French respectively. It seems that by using the personal pronoun "*shoma*", the magistrate aims to create a distance between himself and the defendant along with a serious tone and formal style, and when he recognizes that he can achieve more information by reducing the distance, his tone will be more intimate and his style will be more informal and also uses the second person singular pronoun "*to*". Also, in the last line (20), the magistrate, using the contrast tactic, contrasts the defendant's previous statements with his current statements and implicitly portrays him as a liar and his statements as unreliable.

> 21 M: *Tu resturan chi shod? Chi goftin?*
> What happened in restaurant? What did you talk about?
> 22 D: *Tu resturan boroshuri ke dashtamo taghdimeshun kardam vase moshakhasat mashin, emkanatesh inke har soali ke dashte bashin...*
> At the restaurant, I presented the brochure I had for the car's specifications, its features or any question you have....
> 23 M: *Hala khodavakili naharetuno khordin tamum shod raft? Doroste? Hich etefaghe digei naioftad?*
> Now, honest to God, you ate lunch and it was over, but nothing else happened?
> 24 D: *Na*
> No
> 25 M: *Goft mikham shabihe mashine khodet bekharam?*

Did he say I want to buy something like your car?

26 D: *Nemidunam mikhast bekhare ya nakhare, goft man a mashin khosham umade, dige man borushuro beheshun dadam, dige man nemidunam.*

I don't know if he wanted to buy or not. He said he liked the car. I gave him the brochure. I don't know anymore.

27 M: *Nemiduni mikhast bekhare ya nakhare?*

Don't you know if he wanted to buy or not?

28 D: *Agar be man gofte budan ghasd kharid dashtan hala nakhardide dige man nemidunam.*

If he had told me he was going to buy it, he wouldn't have bought it now, I don't know

29 M: *Na be shoma goft ghasde kharid daram ya nadaram?*

No. he told you I was going to buy it or not?

30 D: *Bale goftesh goft mikham man tahiye konam che jurie? Emkanatesh che jurie? Ye khurde tozih dadam un chizi ke* ✘

Yes, he said. He said he wanted to prepare. What are its features? I explained something. That's what....

31 M: *Nagoft mifrushi mashine khodet ro ya na?*

Didn't he say do you sell your car or not?

32 D: *Na, chon agar ham migoftan man ghasde forush nadashtam.*

Not because if he said so I did not intend to sell

33 M: *Ensafan to jaye man budi in harfharo bavar mikardi?*

Honestly, if you were in my place, did you believe these words?

Case (2) concerns a young man accused of fraud. In line (21), the magistrate uses a broad wh-question form (*What happened in restaurant? What did you talk about?*), which is the least controlling, to elicit new information from the defendant and gives him the opportunity to narrate the event naturally in response in line (22). The interrogator, who does not get the answer (he expects) from the defendant's narration, selects the forms of the questions that have a more controlling level, and therefore, more coercion on responding. In lines (25), (27) and (31), the magistrate uses the yes/no questions (*Don't you know…, Did he say…, Didn't he…*), in line (29) he uses alternative questions (*He told you I was going to buy it or not?*) that forces the defendant to choose one from among two possible variables. Such questions which limit the answer to a particular one are called "leading questions". As Archer (2005, p. 79) states, "trial manuals commonly refer to the most coercive question-types as 'leading questions', because of their characteristic of presupposing and/or trying to 'lead' the respondent to a particular answer." The magistrate, by using leading questions, tries to lead the defendant to confess that he had offered his car to the plaintiff.

The magistrate also uses some tactics which target the defendant's personality like "accommodation". In lines (23) and (33), he uses words (like *Khodavakili*/honest to God and *ensafan*/ honestly) that make an intimate relation between both the magistrate and the defendant. Using such words or expressions helps reducing the distance between both interlocutors. Along with lexical choice, the magistrate also changes his formal style to an intimate/ in-

formal style (*Honestly, if you were in my place, did you believe these words?*) to get more information from the addressee.

34 D: *Khoda midune be Abalfazl doroghi nadarim aghaye ghazi, valla be Abalfazl….man sarparast khunevade ham hastam. Ye Eshtebahi karadam, khataei kardam, ye nafahmi kardam.*

God knows, I swear to Abalfazl, we are not lying, Mr. Judge, I swear to Allah…swear to Abalfazl, we are also the head of the family. We made a mistake, we made a mistake, we misunderstood

35 M: *Ba Xantia budi, doroste?*

You were with a Xanita, is that right?

36 D: *Bale.*

Yes.

37 M: *Tu Postchi?*

(you were) in Postchi?

38 D: *Bale.*

Yes.

39 M: *Khob!*

Aha (go on tell me the rest)

4o D:……..(silence)……

41 M: *Ba Xantia sefid budi tu Postchi che etefaghi oftad?*

Well, what happened in the Postchi when you went there with Xantia?

42 D: *Hich etefaghi naioftad. Ma vaysade budim hamunja kenar khiabun ishun umadan savar shodan.*

Nothing happened, we stopped there, we stopped on the side of the road when she came to ride.

43 M: *Khob!*

Aha (go on tell me the rest).

44 D: *Gushisho dar avord neshune man dad, goft age bavar nemikoni negah kon taze ezdevaj kardam moteahel hastam. Goftam khob boro be salamat. Be khoda aslan man* ✘

She showed me her cellphone and said, "If you don't believe me, look, I'm just married. I'm married." And I said ok, go well. I swear to God I never✘

45 M: *Hamin*?

(just) this?

46 D: *Khoda shahede.*

God is the witness.

47 M: *Tu mashine zantia sefid neshaste bud va goft bia tu Postchi. Vaghti dare aghabo baz kardam umad savar shod. Goft harkat kon. Man goftam agha lotfan harkat nakon.*

 (The magistrate reads from the plaintiff's words) He sat down in the white Xantia and said, "Come to the Postchi. When I opened the back door, he got on." He said, "Move." I said, sir, please don't move.

48 D: *Be Abolfal az unja tekun nakhordim, khodehsun* ✘

I swear to Abalfazl I didn't move from there, she herself✘

49 M: *Pas chera in khanum shakit shode?*

So why has this lady filed a lawsuit against you?

50 D: …..(silence)……

Case (3) concerns a man accused of harassing a woman in his car. In this short piece, which is selected from the interrogation process of the accused, there are some points that can be discussed. First, the defendant mostly swears (I swear to God, I swear to Abalfazl[1]), and it can be considered as a kind of hedge which is a feature of the language of uncertainty. He also has hesitation in lines (40) and (50) during the interrogation. Having hesitation and stating everything under oath portrays the speaker as a person who is lying and his statement unreliable.

The magistrate also uses the "evaluative third parts" strategy that is used in legal settings to support or challenge answers to questions. He states "*khob*/right" in lines (43) and (39) to evaluate the reply and encourages the addressee to tell the rest of the story. In lines (48) and (44), the magistrate interrupts (the sign ✘ represents the interruption) the defendant because he (the defendant) avoids an explicit answer or raises irrelevant issues, so the magistrate interrupts the defendant and directly questions him in order to address the core of the matter. The interesting thing about the interruption of words in all cases is that the magistrate is the only one who is allowed to interrupt the audience, and the opposite is not the case. And that could be because, in legal settings, turns are pre-allocated and the duty and the kind of activity that every interlocutor has to do in their turns is prearranged. For instance, the interrogator's function is asking question and managing the interaction and the role of the answerer is to respond.

> 51 M: *aya rahzani ra ghaul darid?*
> Do you confess to banditry?
> 52 D: *Na man faghat ye serghat kardam.*
> No, I just stole.
> 53 M: *Koja etefagh oftad?*
> Where did it happen?
> 54 D: *Kamarbandi Abadeh.*
> Abadeh ring road.
> 55 M: *aya kamarandi Abadeh rah nist?*
> Ring road isn't a (kind of) road?
> 56 D: *Doroste vali man ghasde rahzani nadashtam.*
> That's right, but I didn't mean to bandit
> 57 M: *aya kife tala va javaherat mosaferin ra be serghat nabordid?*
> Didn't you steal the passengers' gold and jewelry bags?
> 58 D: *Serghat bude*
> It was a robbery
> 59 M: *aya serghat dar nime shab etefagh naioftade?*
> Didn't the robbery happen in the middle of the night?
> 60 D: *Bale.*
> Yes.
> 61 M: *aya majmue raftar va eghdamate shoma rahanie shabane dar jade hamrah ba azyat va azar nabude?*

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[1] He was a son of Ali (who was the first Shia Imam) and he is a holy person.

Weren't all your behavior and actions a night robbery on the road with harassment?

62D: *Man kasi ro azyat nakardam. Man nemidunam rahani chie. Man faghat serghat kardam, rahani nakardam.*

I didn't bother anyone. I don't know what banditry is. I just stole, I didn't bandit.

Case (4) concerns a man accused of banditry. The magistrate uses the word "banditry" to describe a crime committed by a defendant in line (51) (*Do you confess to banditry?*), which carries a heavier penalty in comparison with robbery. However, the defendant refused to admit the crime and claimed that what he had done was a simple robbery and not a banditry. So the magistrate uses "negative suggestions" strategy in the form of leading question (yes/no questions) in lines 55, 57, 59, and 61 to lead the responses of defendant to a point that he accept the banditry. The questioner asks the reverse of what he wishes to discover and uses negative verbs like *isn't* or *didn't*. Using yes/ no questions, especially in negative forms, makes it difficult for the defendant to deny the truth.

Conclusion

The present paper demonstrated how language is used as a tool to provide a specific version of events because all the interlocutors in a trial (judge, attorney, lawyer, defendant, witness, etc.) have a specific version of the event. Testing or challenging such versions of the event is the goal of court hearing and that goal is achieved through questioning. Thus, having proficiency in question designing plays an important role for the questioner to manage questions so that particular responses are recieved from the addressee. In the present study, an attempt was made to investigate the reason for choosing a linguistic form, specifically one question form, among other forms. The results suggest that the interrogator generally uses "leading questions", i.e. closed questions (alternative questions, yes / no questions, declarative questions, tag questions) which coerce or constrain the answer in disputing in thelegal process and force the defendant to choose between the interrogator's chosen options. In contrast, when the interrogator recognizes that the natural narration of the story of the event is needed, he uses open questions (wh-questions, which generally seek for information from the addressee) that put less pressure on the addressee and let s/he narrate without any interruption. The important point about choosing the type of question is that this choice is influenced by pragmatic factors. The relationship between the two structural and pragmatic aspects of questions is captured through person-targeted and idea-targeted pragmatic strategies. The first one triggers the addressee's character and the other considers the addressee's statements and challenges them by using strategies like presupposition, contrast, reformulation, etc.

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The Impact of Task Type and Involvement Load Index on Iranian EFL Learners' Incidental Vocabulary Learning and Retention

Research Article

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Abstract

Vocabulary knowledge has a significant role in communication. Therefore, a plethora of research has investigated the effect of various factors on the acquisition of L2 vocabulary. This empirical study aimed to examine the predictions of Laufer and Hulstijn's (2001) involvement load hypothesis (ILH) by considering the impact of task type and involvement index on Iranian EFL learners' incidental vocabulary learning. The ILH predicts that tasks with the same involvement load should lead to equal vocabulary gains. To this end, forty-five upper-intermediate learners

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were given one of four different tasks with the same involvement index (i.e., reading comprehension plus dictionary use, cloze-exercise plus dictionary use, inferencing, and sentence writing plus meanings of target words in L1 + L2). Participants' receptive and productive knowledge of target words were tested immediately after fulfilling the tasks and three weeks later. Mixed-plot ANOVAs were run to compare the performance of the participants on the tasks. The results revealed that, contrary to the theory's predictions, the performance of the learners on the four tasks was significantly different although the tasks had the same involvement indices. The results suggest that depth of processing and involvement are important factors in vocabulary learning. However, it also seems that the relative importance of the components of involvement might require reconsideration.

Introduction

Learning second language (L2) vocabulary is normally considered as a critical aspect of language learning. Many researchers (e.g., Laufer, 1993; Nation, 2001; Schmitt, 2008) believe that a word is the basic unit of language learning. Although the best means of achieving effective vocabulary learning is still unknown, attempts have been made to explore ways of improving students' vocabulary knowledge. One of the most-influential hypotheses has been Laufer and Hulstijn's (2001) involvement load hypothesis (ILH).

According to Laufer and Hulstijn (2001), vocabulary learning and retention is dependent on involvement load that includes three components: need (N), search (S), and evaluation (E). The theory claims that the load of a task is the sum of the prominence degrees of these three components. Consequently, tasks with higher degree of the involvement index are more effective on vocabulary learning and retention compared to tasks with lower load (Laufer & Hulstijn, 2001).

This study attempts to test the predictions of the ILH. There were two main purposes behind the present study. The first objective was to see whether the same involvement index, regardless of the type of task, leads to equal vocabulary gains. Second, whether different task types with similar involvement indices but different distribution of components have equal impact on word learning and retention of Iranian EFL learners.

Review of Literature

Explanations have been offered in the literature as to why more engagement with new vocabulary items lead to higher vocabulary learning and retention. Craik and Lockhart (1972) offered the depth of processing hypothesis (DOP). They argued that the chances of a new word to be stored in the long-term

memory are increased by the degree of learners' attention and the amount of deep processing of that word. It means that deeper processing of a vocabulary item will lead to better learning and retention of that item.

According to the DOP theory, a deeper level of processing entails strong and detailed attention, encoding, elaboration, storing, and retrieving the information. Although almost all researchers agree with the DOP, the theory has been criticized by some researchers (e.g., Baddeley, 1978; Eysenck, 1978; Nelson, 1977). According to the critics, the problem lies in the meaning of the level of processing, and the ability to distinguish between the higher and lower levels of processing. The two major disadvantages of the DOP and the necessity of offering an operational definition of different levels of mental processing led Laufer and Hulstijn (2001) to introduce the ILH. Laufer and Hulstijn accept the importance of the level of processing. However, they assert that by operationalizing the cognitive notions they will be able to omit the weaknesses of the DOP. Based on the ILH, it is possible to predict the degree of involvement load of each task by considering three factors: need, search, and evaluation.

Need is a motivational component. "Need is concerned with the *need to achieve*" (Laufer & Hulstijn, 2001, p. 14). It is active when completion of a task is required and can come in two degrees: moderate + (1) or strong ++ (2). Need is moderate when an authority like a teacher asks students to complete a task, use a word in a sentence, or write a composition by targeted vocabularies (extrinsic motivation). On the other hand, need is considered to be strong when it is internally obligated by the learners, when they aim to do a task to acquire or to search a word in a dictionary in order to carry out a task. The search component is either present (i.e., search + [1]) or absent (i.e., search – [0]). Search can be present if learners make an effort to find the meaning of an unfamiliar L2 word by consulting a dictionary, asking teachers, or peers (negotiation), or inferring.

Evaluation is another cognitive component, and like need, has two prominence degrees. When learners need to make a decision and select the most appropriate word by comparing that word with other words (by its meaning, form, or suitability) according to the specific context, the evaluation dimension is active and its involvement load is moderate and is denoted by "evaluation +". On the other hand, if after choosing the suitable word among other options, it is required to use that target word to combine it with additional words to generate an original sentence or context, evaluation is strong, and is symbolized by "evaluation ++".

Laufer and Hulstijn (2001) compared three tasks: reading (N+, S-, E-), fill-in-the-blanks (N+, S-, E+), and composition writing (N+, S-, E++), to examine the impact of the task type on the vocabulary learning and retention. Their findings showed that composition writing with the involvement index of three outscored the other two tasks. Besides, the fill-in-the-blanks task group outperformed the reading task in incidental word learning and retention. Overall, their results strongly supported the ILH.

Keating (2008) examined beginner Spanish language learners through three tasks with varying involvement loads. Keating noted that "time-on-task is an important factor to consider when evaluating the relative effectiveness of vocabulary learning tasks" (p. 382). The results revealed that higher involvement load leads to higher vocabulary learning.

Similarly, Kim (2008) conducted a study including two experiments by considering different levels of proficiency and task types. Actually, the first experiment was a partial reproduction of Laufer and Hulstijn's (2001) experiment. Kim (2008) carried out the study by giving the participants three tasks that had different involvement indices. She also controlled time-on-task. The results showed that, compared to the gap-fill and reading groups, the composition group had the greatest immediate posttest performance. The evidence in the first experiment suggested that there is no relationship between vocabulary learning and proficiency level.

The purpose of the second experiment was to examine whether different tasks with similar involvement index affect vocabulary learning and retention of students with different proficiency levels. The main reason behind performing the second experiment was to test Laufer's (2005) assumption that writing sentences and composition writing demonstrate the same degree of involvement load. The findings of the second phase of the study showed that the two tasks with the same involvement load have comparable effects on vocabulary learning and subsequent retention, and students' proficiency levels had no influence on initial vocabulary acquisition.

Kim (2008) kept the task time fixed. That is, time-on-task was fixed for all three groups. However, in Keating's (2008) experiments, time-on-task was not fixed. According to Bao (2015), another important difference between the experiments of Kim (2008) and Keating (2008) is the type of post hoc test.

Nassaji and Hu (2012) examined the effect of task-induced involvement load on language learners' inferring word meanings from context. The learners were asked to read a text and infer the meanings of 10 unfamiliar target words. Think aloud protocols were used in order to gain information about the different strategies employed by the learners. The first text included multiple-choice glosses for the target words in the margins, with the lowest task-induced involvement load (need+, search-, and evaluation+). The second text was a regular text with the target words and with moderate involvement load (need+, search+, and evaluation+). The target words in the third text were designed in derivationally different forms from the original target words, (need+, search++, evaluation++) with the highest task-induced involvement load. The results supported the hypothesis that reading texts with more cognitive effort increases learners' initial learning and retention.

There are also other studies that have failed to provide supportive evidence for the ILH. Zou (2017) investigated the evaluation component of the ILH. She examined vocabulary acquisition through three tasks: cloze exercise with involvement index of 2 (i.e., need +, search -, evaluation +), and sentence writing

and composition writing with the similar involvement index of 3 (i.e., need +, search -, evaluation ++).

Zou's (2017) findings only partly supported the ILH. In initial vocabulary learning, the participants who had completed the tasks with higher involvement load outperformed the participants who had completed the task with lower involvement load. However, tasks with similar involvement load did not lead to the same amount of vocabulary learning on the posttest. The result was in contrast with the predictions made by the hypothesis. According to the hypothesis, since sentence writing and composition writing have the same involvement load, the performance of both groups of participants should be similar. Nevertheless, the two groups did not have the same performance on the posttest. Therefore, she proposed an augmented evaluation framework: "I propose an augmented evaluation framework, suggesting that evaluation induced by the cloze-exercises should be 'moderate +', evaluation induced by sentence-writing 'strong ++', and evaluation induced by composition-writing 'very strong +++'" (p. 18).

In another experimental study, Laufer (2003) gave her participants three different tasks that had similar involvement loads: reading comprehension and dictionary consultation to find the meaning of unfamiliar words (need+, search+, evaluation+, involvement index = 3), writing original sentences with the target words (need+, search-, evaluation++, involvement index = 3), and completing sentences after finding up the meaning of unfamiliar words (need+, search+, evaluation+, involvement index = 3). All three tasks had the same involvement index, and she expected to find equal vocabulary gains. Nevertheless, the findings of the experiment revealed that, on the immediate posttest, reading comprehension group received the lowest scores. Yet, the difference between sentence writing and sentence completion groups was not statistically significant. Likewise, the sentence completion group outperformed the other groups on the delayed posttest. Therefore, the evidence found by Laufer's (2003) experiment was not in keeping with the predictions made based on the ILH.

Although a few studies (e.g., Keating, 2008; Kim, 2008; Nassaji & Hu, 2012; Zou, 2017) have been done to reexamine the ILH and the impact of different types of tasks on incidental word learning, researchers have mainly focused on the comparison between the effectiveness of different types of tasks with varying involvement loads. However, few studies have directly examined the effect of different task types with similar involvement load on incidental vocabulary learning. Hence, this study was conducted to inspect the degree to which the assumptions underlying the ILH are plausible and the extent to which teachers and language learners can rely on the predictions made by the hypothesis. In addition, by considering Laufer and Hulstijn's (2001) theory and their proposal that "the impact of incidental learning of *search* might be lower than that of *need* and *evaluation*" (p. 21), another question emerged. Whether a task that consists of need+, search-, and evaluation+ could provide the same amounts of vocabulary learning compared to a task that consists of need+, search+, and

evaluation-. Laufer and Hulstijn (2001) state that more empirical studies in diverse educational settings, proficiency levels, and task types are required for examining the predictions made by the ILH.

In light of previous studies on the effectiveness of different types of tasks on incidental vocabulary learning, this study compares the influence of four different task types, inducing similar level of involvement load on incidental vocabulary learning. Thus, it seeks answers to the following questions:

1. Do tasks with the same involvement load but a different distribution of the components involved lead to equal vocabulary gains in Iranian EFL learners?
2. Do different tasks that involve the search factor have the same effect on initial vocabulary learning and retention of Iranian EFL learners?
3. Is there any statistically significant difference between input-oriented and output-oriented tasks in learning and retention of new vocabulary items by Iranian EFL learners?

Method
The Tasks

In keeping with the objectives of the study, forty-five upper-intermediate English as a foreign language (EFL) learners were randomly assigned to four groups to complete one of the four different task types with similar involvement index (i.e., 3): reading comprehension + dictionary use (N+, S+, E+), cloze-exercise + dictionary use (N+, S+, E+), inferencing (N+, S+, E+) with no dictionary use, and sentence writing + meanings of target words in L1 + L2 (N+, S-, E++). Intact classes were used in this study. Hence, the selection of the participants was done through convenience sampling. The assignment of the groups to each of the treatments, however, was randomly done. In order to assess their vocabulary learning and retention, the participants were provided with an immediate posttest following completing the task and a delayed posttest three weeks later. The posttest was designed by the researchers and was the same test used as the delayed posttest. The reliability of the scores obtained from the posttest was estimated through Cronbach Alpha and was 0.87. Cronbach alpha was selected as it is one of the most frequently used reliability indices.

Participants

First, a total number of 53 (35 females and 18 males) EFL language learners were selected though convenience sampling. However, the participants were not aware of the real nature of the study and they were not informed about an upcoming delayed posttest. Hence, eight of them did not show up on the day the delayed posttest was given. Thus, the final number of participants in the current study was 45 Iranian EFL language learners that were from 4 intact classes from the same institute. The age of participants ranged from 17 to 34.

Based on their scores on the final exam of their previous semester, they were reported to be upper-intermediate. However, in order to be more confident of the homogeneity of the participants, an Oxford Placement Test (OPT) was also administered. Descriptive statistics were obtained from the data. The results confirmed that the participants were at the upper intermediate level. We could not randomly select each individual and assign him/her to different classes. Hence, intact classes were selected, but the assignment of each class to one of the four tasks was totally random. Each class was required to complete one of the four different types of task (i.e., Reading comprehension, Cloze Exercise, Inferencing, and Sentence Writing) (as shown in Figure 1).

Figure 1
Different Groups and Their Defined Tasks

Group 2

Cloze Exercise + 13 glossed words + dictionary use + 10 gap-fill, involvement load= 3

11 EFL Learners

Group 1

Reading Comprehension + dictionary use, involvement load= 3

12 EFL Learners

Participants

45 EFL

Learners

Group 3

Inferencing

10 EFL Learners

Group 4

Sentence Writing + glossed target words + English meanings + Farsi equivalents, involvement load = 3

12 EFL Learners

Procedure

For the purpose of the study, ten target words (apprehensive adj., oration n., vexed adj., spawn v., envision v., abate v., caveat n., assiduous adj., stymie v., and

divulge v.) were selected. In order to remove any possible influence of the grammatical category, different parts of speech (i.e., noun, verb, and adjective) consisting of 5-12 letters were employed. Since all groups received the same vocabulary items, we assumed that the use of different parts of speech could not differentially affect their performance.

One week before the study, seven learners similar to the target group were asked to complete Min's (2008) vocabulary knowledge scale to indicate the level of their familiarity with the target words (see Table 1). The objective of this test was to determine the familiarity of the participants with the target words. Since the administration of the test to the final participants could severely affect the results, we had to select a similar group of participants. The results revealed that the learners had no knowledge of the target words.

Table 1
Min's Modified Vocabulary Knowledge Scale (2008)

	[A]	[B]	[C]	[D]
Target words	I don't remember having seen this word before.	I have seen this word before, but I don't know what it means	I know this it means	I can use this word in a sentence. (write a sentence)

Following Laufer and Hulstijn (2001), four different tasks with similar involvement loads were used (see Table 2).

Table 2
Different Type of Tasks and Their Degrees of Involvement

Type of task	Groups	Need	Search	Evaluation	Involvement index
Reading comprehension no glossary + dictionary use	12	Moderate (1)	Present (1)	Moderate (1)	3
Cloze exercise no glossary + dictionary use	11	Moderate (1)	Present (1)	Moderate (1)	3
Reading comprehension by inferencing	10	Moderate (1)	Present (1)	Moderate (1)	3
Sentences Writing +marginal glosses	12	Moderate (1)	Absent (0)	Strong (2)	3

The participants were provided with two vocabulary tests: a multiple-choice recognition test to recognize word form, and Folse's (2006) modified vocabulary knowledge scale (VKS). The tests were run once immediately after task

completion and again three weeks later to measure the students' retention. At this stage, the participants met the target words once via completing their respective tasks. Hence, using Min's (2008) VKS with its first item (i.e., I don't remember having seen this word before) did not make sense. Therefore, in order to test their initial target words learning and retention, instead of Min's (2008) four-item VKS, Folse's (2006) VKS with three items was adopted (see Table 3).

Table 3
Folse's (2006) Modified Vocabulary Knowledge Scale

	[A]	[B]	[C]
Target words	I cannot remember the meaning of the word	I can remember the meaning of the word it means	I can write a sentence by using this word, for example:

The scoring system for the multiple-choice recognition test is simple. Each incorrect target word form received a score of zero and the correct form was given a full score (i.e., 1). The scoring system for Folse's (2006) VKS was used based on some previous studies (e.g., Keating, 2008; Laufer & Hulstijn, 2001; Paribakht & Wesche, 1993; Zou, 2017). A meaning received a score of zero if it was completely incorrect, a half score if a plausible semantic equivalent of the target word was provided, and a full score if the provided meaning was correct. As for the sentences, the criteria used in the studies of Laufer and Hulstijn (2001), Paribakht and Wesche (1993), and Zou (2017) were employed. A score of 0 was given to a sentence if the target word appeared in a completely incorrect sentence (grammatically and semantically). A half score was given to a sentence if the target word was used semantically appropriately but ungrammatically, and a full score of 1 was given to a sentence if the target word was used in a semantically and grammatically appropriate context. As there were ten target words, in the multiple-choice recognition test, full marks equaled 10, and in the VKS test, full marks equaled 20 (10 for meanings and 10 for sentences).

One of the researchers and another experienced teacher separately scored the two posttests. Inter-rater reliability estimates for the immediate and delayed posttests (as assessed through Pearson correlation) were 97.7% and 96.9%, respectively.

Results

The descriptive statistics for the immediate and delayed post-test are given in Table 4. It is clear that the participants showed evidence of impressive vocabulary learning and retention in all four tasks. It appears that the largest immediate recognition scores of the participants were in the cloze task. On the other hand, sentence writing had the lowest scores. As for immediate production, sentence writing had by far the highest scores while reading had the lowest scores. In the delayed recognition test, the cloze test led to the highest scores

while the sentence writing had the lowest scores. This is exactly what also appeared in the immediate phase. The order of the tasks from the largest scores to lowest scores both in immediate and delayed recognition aspects is the cloze, reading, inferencing, and sentence writing.

As for the immediate production tasks, the participants got the highest and lowest scores in sentence writing and reading, respectively. On the other hand, and surprisingly, inferencing had the highest scores in the delayed production phase. In addition, reading had the lowest scores.

Table 4
Descriptive Statistics

Group		N	Minimum	Maximum	Mean	Std. Deviation
Sentence Writing	Immediate Recognition	12	5.00	10.00	7.000	1.348
	Immediate Production	12	.00	15.25	6.229	5.138
	Delayed Recognition	12	2.00	10.00	6.250	2.598
	Delayed Production	12	.00	3.75	.708	1.300
Inferencing	Immediate Recognition	10	6.00	10.00	7.500	1.640
	Immediate Production	10	.00	5.50	2.725	1.902
	Delayed Recognition	10	4.00	10.00	6.800	2.044
	Delayed Production	10	.00	3.00	1.250	1.178
Cloze	Immediate Recognition	11	6.00	10.00	8.818	1.168
	Immediate Production	11	.00	3.50	2.068	1.225
	Delayed Recognition	11	5.00	10.00	8.454	1.863
	Delayed Production	11	.00	1.00	.295	.458
Reading	Immediate Recognition	12	7.00	9.00	8.000	.738
	Immediate Production	12	.00	3.25	1.458	1.152
	Delayed Recognition	12	3.00	10.00	7.167	2.368
	Delayed Production	12	.00	1.00	.146	.310

In order to see the statistical significance of the difference, a mixed ANOVA was run. The grouping of the participants (based on the tasks they worked on) was considered as the between-subject factor while the immediate and delayed post-tests for both recognition and production were taken as within-subject factors.

Before running the mixed ANOVA, the assumptions were checked. The Box's M test of the homogeneity of covariance matrices was significant at $p < 0.001$. Hence, the assumption was rejected. In such situations, Pillai's Trace should be interpreted rather than the usual Wilks' Lambda (see Pallant, 2016). Before interpreting the results, it must be checked that the interaction terms are not significant. A significant interaction term means the main effects cannot be interpreted as they appear. It is clear that all interaction terms are significant (see Table 5). Hence, the results of the mixed ANOVA cannot be interpreted and separate analyses must be done.

Table 5
Mixed ANOVA Results

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Recognition	Wilks' Lambda	.080	474.391	1	41	.000	.920
Recognition * Group	Wilks' Lambda	.490	14.243	3	41	.000	.510
Production	Wilks' Lambda	.511	39.247	1	41	.000	.489
Production * Group	Wilks' Lambda	.760	4.312	3	41	.010	.240
Recognition * Production	Wilks' Lambda	.774	11.952	1	41	.001	.226
Recognition * Production * Group	Wilks' Lambda	.793	3.568	3	41	.022	.207

The next step in the analysis was to run four one-way between-subjects ANOVAs. The results are displayed in Table 6. It is clear that except for delayed recognition, all other differences are significant. Note that the number of participants in this study was small due to the difficulties of data collection. This certainly affects the results of significance testing. Specifically, significance testing is very sensitive to sample size. Thus, with small sample sizes, moderate or even large effects might not be significant. In order to overcome this problem, effect size tests are usually reported. This comes in the last column of Table 6. In order to interpret the Eta squared values, Cohen's (1988) guidelines are usually considered. Based on his rule of thumb, 0.01 is considered as a small effect, 0.06 as a moderate effect, and 0.14 as a large effect. Here, the Eta squared values indicate that all effects show a large effect except for delayed recognition which shows a moderate effect.

Table 6
Results of One-Way ANOVAs

		Sum of Squares	df	Mean Square	F	Sig.	Eta squared
Immediate Recognition	Between Groups	20.441	3	6.814	4.356	.009	0.24
	Within Groups	64.136	41	1.564			
	Total	84.578	44				
Immediate Production	Between Groups	162.790	3	54.263	6.310	.001	0.32
	Within Groups	352.604	41	8.600			
	Total	515.394	44				
Delayed Recognition	Between Groups	29.667	3	9.889	1.947	.137	0.12
	Within Groups	208.244	41	5.079			
	Total	237.911	44				
Delayed Production	Between Groups	7.839	3	2.613	3.127	.036	0.19
	Within Groups	34.264	41	.836			
	Total	42.103	44				

A significant F-test would mean that at least one of the comparisons is significant. In order to see which of the comparisons are significant, the Sheffe posthoc test was run. The results of the post-hoc analyses are displayed in Table 7. Note that the results for delayed recognition are not displayed because the main effect was not significant, though it showed a moderate effect. Based on

the post-hoc analyses, it is clear that in the immediate recognition phase, the difference between sentence writing and cloze is the only significant difference. In the immediate production, on the other hand, the differences between sentence writing and the three other tasks is significant. The differences between reading, cloze, and inferencing are not significant. Finally, in the delayed production, the difference between inferencing and reading is the only significant difference.

Table 7
Post-Hoc Analyses

Dependent Variable	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.
Immediate Recognition	Sentence Writing	Inferencing	-.500	.535	.832
		Cloze	-1.818*	.522	.013
		Reading	-1.000	.510	.294
	Inferencing	Cloze	-1.318	.546	.138
		Reading	-.500	.535	.832
	Cloze	Reading	.818	.522	.491
Immediate Production	Sentence Writing	Inferencing	3.504	1.255	.065
		Cloze	4.161*	1.224	.016
		Reading	4.771*	1.197	.004
	Inferencing	Cloze	.657	1.281	.966
		Reading	1.267	1.256	.797
	Cloze	Reading	.610	1.224	.969
Delayed Production	Sentence Writing	Inferencing	-.542	.391	.595
		Cloze	.413	.382	.761
		Reading	.562	.373	.525
	Inferencing	Cloze	.954	.399	.144
		Reading	1.104	.391	.061
	Cloze	Reading	.150	.382	.984

Discussion

According to Laufer and Hulstijn (2001), the superiority of a task in vocabulary acquisition "is determined by the involvement load it induces," (p. 21) (i.e., a task with involvement index of 3 will be more effective than a task with involvement index of 2). Our findings show that each of the tasks used in this study led to different levels of learning and retention although they had the same involvement index. Thus, our findings are in contrast to the predictions of the ILH and previous research findings which argued that the involvement index alone determines the degree of task effectiveness in vocabulary learning. Laufer and Hulstijn (2001) clearly state that other factors such as task types (e.g., input-oriented versus output-oriented task) have no significant influence on the effectiveness of a task in vocabulary learning and retention. The results of our study do not confirm their claim.

Each of the four tasks showed differences in both immediate and delayed posttests. The effectiveness of all four tasks showed significant differences even though they had the same involvement load. Hence, the results do not support the ILH. Moreover, the cloze-exercise task had the best results and the sentence

writing task had the worst performance on the immediate recognition posttest (i.e., 8.81, and 7). The difference between the cloze-exercise task and the sentence writing task was the only significant difference in immediate recognition phase. The cloze task is followed by reading comprehension, and inferencing tasks.

In the immediate productive knowledge test, the sentence writing group, which had strong evaluation++, performed significantly better than all three other groups which had moderate evaluation+. These results are in keeping with Laufer and Hulstijn's (2001) experiment concerning Dutch-English learners. In addition, the results support the findings of Kim's (2008) and Zou's (2017) studies. In Kim's study, the sentence writing and composition writing groups (both with strong evaluation) performed significantly higher than the other two groups (i.e., gap-fill group with moderate evaluation and reading group with no evaluation).

In the delayed recognition test, the participants in cloze test gained the highest scores while the participants in sentence writing got the lowest scores. This is exactly what also took place in the immediate recognition test. Therefore, the order of the tasks from the highest scores to lowest scores both in immediate and delayed recognition tests was as follows: the cloze-exercise, reading comprehension, inferencing, and sentence writing.

As for the retention of productive word knowledge, the participants obtained the highest and lowest scores in inferencing and reading comprehension, respectively (i.e., 1.25, and .14). While there were differences between all four tasks in delayed productive vocabulary knowledge, only the difference between inferencing and reading comprehension tasks was significant.

The results of the study demonstrate that the difference between cloze and sentence writing was the only significant difference in immediate recognition test. This may be attributed to the lack of the cognitive component of search in sentence writing task. Since the component of search is absent in sentence writing, such processing does not take place and, consequently, the participants in this group obtained the lowest score in both immediate and delayed recognition tests. Besides, the finding of the current study revealed that, although the component of search may affect immediate and delayed recognition of words' form, different realizations of search have similar effects on both incidental word learning and retention (i.e., consulting a dictionary, asking a teacher or peer, or inferring).

In addition, the findings in the immediate productive test showed that the strong type of the evaluation component induces much greater level of processing than the other components (i.e., moderate and strong need, search, and moderate evaluation) at least at the first stages of word learning. It means that strong evaluation ++ possibly increases learner's initial vocabulary learning (Kim, 2008; Zou, 2017). Although there are differences between all four tasks in the delayed recognition test, none of them is significant. Note that, due to the difficulties of data collection, the number of participants in this study was small

and significance testing was very sensitive to sample size. Hence, with small sample size, moderate or even large, effects might not be significant. Nevertheless, this finding is in line with the ILH in that different types of task that induce similar involvement index generate similar amount of retention.

Furthermore, in the delayed productive phase, the participants in inferencing group outscored the other three groups and the difference between inferencing and reading comprehension tasks was significant. It may be the case that inferencing has a facilitative impact on vocabulary learning (Nassaji & Hu, 2012; Nation, 2001; Webb & Chang, 2015). It seems that inferring the meaning of unknown words induces much greater level of processing that leads to less memory loss and the deeper learning and retention of word knowledge.

One possible explanation for the lowest mean scores of the reading comprehension task may be ventured here. Reading a text and looking up its unknown words to answer some reading questions lead to less retention of productive word knowledge possibly because they do not deeply involve the learner. This might be true if we accept the ILH hypothesis. Remember that in the present study, even the sentence writing group, which obtained the highest productive vocabulary knowledge, experienced the greatest drop after the three-week interval. Therefore, multiple exposures to new words is required in order to improve retention of incidentally learnt vocabulary. Moreover, compared to three other tasks, the inferencing task suffered the slightest decline in productive vocabulary knowledge from the immediate to delayed posttests. This is evident from the changes in means scores from the immediate to delayed posttests. As explained before, the nature of the inferencing is making connections between learners' background knowledge and available clues in text. It seems that a higher degree of involvement takes place through processing the new words. This may be the main reason behind less memory loss over time in the inferencing task.

Conclusion

Based on the results of the study, although Laufer and Hulstijn (2001) assume an equal impact for all three components of the hypothesis, it appears that equal importance should not be attached to these components. In addition, the findings reveal that different realizations of search induce similar amount of word learning and retention in both immediate and delayed posttests. It also seems that being an output- or input-oriented task cannot guarantee the level of processing and vocabulary learning. It appears that the involvement index alone cannot predict the efficacy of vocabulary tasks. Therefore, the operational definitions of the components of involvement regardless of other factors that make a task more or less effective might require reconsideration.

Our findings also show that, due to the lack of frequent exposures and repetition of the new words, all groups suffered a memory loss from immediate posttest to delayed posttest. Thus, in an EFL setting where language learners suffer from the lack of exposure outside of English classes, designing tasks that

create an opportunity to expose students to the new lexical items could be effective (Nation & Wang, 1999). Therefore, by considering multiple exposures as a key factor in changing temporary vocabulary knowledge to permanent knowledge, teachers could play an influential role in this process

The progress in vocabulary learning may take place via doing tasks with strong evaluation, writing-focused tasks, or even deliberate repetition of new target words after completing tasks. Some previous studies (e.g., Folse, 2005; Keating, 2008) pointed out the positive influence of repetition via instruction. It is suggested that teachers design a variety of writing-based tasks that have strong contextual clues for inferring meaning of unfamiliar words that can encourage learners to produce sentences, paragraphs, or compositions with target words to help them to better anchor the words in memory.

It is clear that incidental and intentional approaches to vocabulary learning have to be considered as equal partners that need each other (Schmitt, 2008). Due to the restriction of time and the difficulty to teach vocabulary, teachers can teach target words through deliberate, long-term, and effective incidental word learning programs. Furthermore, a wide range of exposure to newly learned words and intentional approaches is required to consolidate and expand incidentally learnt lexical items.

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Abstracts
of Papers
in Persian

تأثیـر تکنیک‌های ایجادِ آگاهیِ نحـوی بـر عملکـردِ نوشتاری فعالیت داستان‌محور در زبان‌آموزانِ سطحِ متوسط ایرانی

مقالۀ پژوهشی

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چکیده

با گذشت زمان به سبب تأثیرات احتمالی تکنیـک‌هـای متفـاوت ایجـادِ آگـاهی بـر عملکرد زبان‌آموزان، توجه به آگاهی زبانی به طور چشـمگیری افـزایش یافتـه‌اسـت. پژوهشِ حاضر به ویژه، به بررسی اثرات چنین تکنیـک‌هـایی بـر عملکـرد نوشتاری فعالیت داستان‌محور در زبان‌آموزانِ سطحِ متوسط ایرانی می‌پردازد. شرکت‌کنندگان پژوهش حاضر، مشتمل بر ۴۰ زبان‌آموز بودنـد کـه همگنـیِ اولیـۀ آن‌هـا، از جنبـۀ مهارت زبانی، با یک آزمون زبانِ عمومی مورد سنجش قرار گرفت. سپس، آن‌ها بـه طور تصادفی در یک گروه آزمایش و یک گروه کنترل - که هر یک مشـتمل بـر ۲۰ نفر بودند، قرار گرفتند. دورۀ آموزش ۱۷ جلسه، به طول انجامیـد کـه طـی آن بـه شرکت‌کنندگانِ گروه آزمایش، تکنیـک‌های ایجاد آگاهیِ نحـوی از طریـق «اجـزای دستوریِ داستان» و «تصحیح آرایشِ واژگانی» آموزش داده شد. بلافاصله پـس از آموزش، پس‌آزمونی مشتمل بر فعالیت داستان‌محور گرفته شد. یافته‌های برآمـده از تجزیه و تحلیل داده‌ها نشان داد گروه آزمایش که با چنـین تکنیـک‌هـایی آمـوزش دیده بودند، در مقایسه با گروه کنترل، در نقلِ داستان‌های کوتاه به صورت مکتـوب، عملکرد بهتری داشتند. یافته‌های پژوهشِ حاضر، نقشِ آگاهی زبانی در بهبودِ مهارتِ زبانی در زبان‌آموزان را برجسته نموده و راه را برای گنجاندن این گونه تکنیک‌هـا در برنامه‌های آموزشی، هموار می‌سازد.

کلیدواژه‌ها: فعالیت داستان‌محـور، فعالیـت نوشـتاری، اجـزای دسـتوری داسـتان، مهارت زبانی، تصحیح آرایش واژگانی

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پیش‌پنداشت‌هـای معلمـانِ تـازه‌کـارِ انگلیسـی در آموزشِ زبان انگلیسی: بررسی موردیِ مؤسسه‌هـای خصوصی در ایران

مقالۀ پژوهشی

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چکیده

شناسایی پیش‌پنداشت‌های معلم‌ها، به عنوان روندی روبه‌رشد در رویکردی شناختی به آموزش، می‌تواند به آشکارسازی جنبه‌های زیربنـایی گونـاگونی کمـک کنـد کـه تأثیرات معناداری بر فرایند آمـوزش خواهنـد داشـت. چنـین پیـش‌پنداشـت‌هـایی، بی‌گمان، در رابطه با آموزگاران تازه‌کار، به ویژه معلم‌هـای دورۀ زبان انگلیسـی بـه عنوان زبان خارجی، اهمیت بسیاری دارند، معلم‌هایی که در خصوصِ آمـوزش، بـه شـکل‌دهـی یـا تغییـرِ شـکلِ ایـده‌هـای خـود دسـت مـی‌زننـد. ایـن پـژوهش، پیش‌پنداشت‌های معلم‌های تازه‌کار زبانِ انگلیسی در مؤسسه‌های خصوصی ایران را با سه هدف پیشِ رو بررسی کرده‌است: (الف) در پی وجود احتمالِ هر پیش‌پنداشت در مورد تدریس در معلمان بوده‌است، (ب) به دنبالِ کشفِ هر الگوی مشابهی در نظرات آن‌ها بوده‌است (پ) بر آن بوده تا عبارت استعاره‌ای را بیابد که آموزگاران بـرای بـه اشتراک گذاشتن تجربیاتشان در ارتباط با آموزش زبان انگلیسی به کار برده‌اند. برای یافتن شباهت‌های پیش‌پنداشت‌هـای معلـم‌هـای تـازه‌کـار، رونوشـت‌هـایی از یـک پرسش‌نامۀ مشتمل بر دوازده مقوله بهره گرفته شد که توسـط نمونـه‌ای از معلمـان زبان انگلیسی تـازه‌کـار (۴۳ مـرد/زن) پاسـخ داده شـدند. تحلیـل داده پـنج عامـل زیربنایی پیش‌پنداشت‌ها را نشان داد: یادگیری، حـل مسـئله دانـش‌آمـوزان، نقـش آموزگاران، تدریس و معلم خوب. افزون بر این، برای بررسی عبارت‌های اسـتعاره‌ای، مصاحبه‌های نیمه‌ساختاریافتۀ ۲۰ دقیقه‌ای با ۵ معلم تازه‌کار، انجام شد. مصاحبه‌ها

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نشان دادند که شرکت‌کنندگان از استعاره‌ها برای به اشتراک گذاشــتن تجربــه‌هــای آموزشی خود بهره می‌برند.

کلیدواژه‌ها: پیش‌پنداشت‌ها، استعاره، معلمان تازه‌کار، آموزگاران زبان انگلیسی بــه عنوان زبان خارجی، روان‌شناسی شناختی.

تأثیر پادکست‌ها و وادکست‌ها در میان زبان آمــوزان انگلیسی با انگیزه: سطوح متفاوت مهارت شنیداری

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چکیده

این روزها، فناوری بخشی جدایی‌ناپذیر زندگی ما است. در رابطـه بـا پادکسـت‌هـای مؤثر و یا طراحی وادکست‌ها و ادراک و نگرش دانش‌آموزان نسبت به ایـن روش‌هـا، تحقیقات نسبتاً کمی وجود دارد. در پژوهش حاضر، هدف، تبیینِ تأثیر پادکست‌ها و وادکست‌ها بر پیشرفتِ زبان‌آموزان بـاانگیزه، در خصوصِ مهـارت شـنیداری اسـت. نگارندگان از نمونه‌گیری هدفمند استفاده کردند و فراگیران به دو گروه کنترل و یک گروه آزمایش دسته‌بندی شدند. به ایـن منظـور، از نسـخه معتبـر پرسـش‌نامـه کـه نمایانگر میزان علاقه به بهبود مهارت شنیداری است، برای انتخاب شمار مناسبی از یادگیرندگانِ باانگیزه، استفاده شد. در میان زبان‌آموزان منتخب، از ۲۵۰ زبـان آمـوز متوسط و پیشرفتۀ ۱۸ تا ۳۵ ساله که در سال ۲۰۲۰ انگلیسـی را بـه عنوان زبان خارجی در مؤسسه آینده‌گرا فرا می‌گرفتند، درخواست شـد، دو پرسـش‌نامـه را پـر کنند. از بین ۶۰ پادکست و ۵۰ وادکست، ۱۰ پادکست و ۱۰ وادکست بـر مبنـای فرمول نسبت اعتبار محتوا و شاخص اعتبار محتـوا (۰.۷۹، ۰.۴۲) انتخـاب شـدند. طرح پژوهش از نوع تجربی بود. در مطالعه حاضر، از آمـار توصـیفی و آزمـون‌هـای آنکووا در تجزیه و تحلیل داده‌های کمی بهره گرفته شـد. نتیجـه آن بـود کـه بـین نمره‌های پیش‌آزمـون و پـس‌آزمونِ گـروه آزمایشـی در هـر دو گـروه پادکسـت و وادکست اختلاف معناداری وجود دارد، در حـالی کـه بـین نمـرات پـیش‌آزمـون و پس‌آزمون گروه کنترل اختلاف معناداری وجود ندارد. همچنین، یافته‌ها نشـان داد که اختلاف معناداری میانِ گوش دادن به پادکست‌ها یا تماشای وادکسـت‌هـا وجـود ندارد.

کلیدواژه‌ها: مهارت شنیداری، پادکست، آموزش انگلیسی، فناوری، وادکست

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تأثیر نوع فعالیت بــر نوســانات انگیرشـــی: بررســی موردی زبان‌آموزان ایرانیِ مقطع ارشدِ دبیرستان

مقالۀ پژوهشی

محمد محمدی[۱]

پرویز علوی‌نیا[۲]

چکیده

در حالی که پیش از این، انگیزه به عنوان یک مفهوم ایستا نگریسته می‌شد، امـروزه به عنوان مقوله‌ای مورد بررسی قرار گرفته‌است که پیوسته در جریان اسـت. ماهیـتِ پویای انگیزه و مفهوم نوسانات انگیزشی در حالی گسترش یافت که نظریه نظام‌های پویای پیچیده (سی.دی.اس.تی) در بین دانشمندان علوم و سپس به تدریج در زمینه زبان‌شناسی کاربردی، شهرتِ بیشتری یافت. پژوهشِ حاضر، عمدتاً بـا الهـام از ایـن دیدگاه فعلی دربارۀ انگیزه به عنوان یک پدیده پویا، در پی بررسی نقش بـالقوه نـوع فعالیت در نوسانات انگیزشـیِ تجربه‌شـده توسـط زبان‌آمـوزان زبان انگلیسـی در دبیرستان است. در انجام این کار، نقش احتمالی جنسیت نیز مورد توجه قرار گرفت. پژوهشگران برای گردآوری داده‌ها از موتومتر بـه عنـوان ابـزاری کـه معمـولاً بـرای اندازه‌گیری سطوح انگیزش خودآگاهانه زبان‌آموزان در طول زمان و همچنین هنگامِ مصاحبه به کار می‌رفت، بهره گرفتند. بر پایۀ یافته‌ها، مشخص شد نـوع فعالیـت بـه عنوان عامل تعیین‌کنندۀ اصلی در تغییـرات انگیزشـی اسـت. از میـان سـه فعالیـت اجراشده در پژوهش حاضر، فعالیت شمارۀ ۲ با تمرکز بر حـلِ مسـئله و پـس از آن فعالیت شمارۀ ۳ که فعالیتی مبتنی بر تصویر بود، به عنوان الهام‌بخش‌ترین فعالیـت برای زبان‌آموزان بودند. افزون بر این، در رابطه با پرسش دوم پژوهش، معلوم شد که جنسیت در حین انجام فعالیت، هیچ اهمیتی ندارد. تصور می‌شود کـه ایـن بررسـی برای همه عوامل دخیل در نظام آموزشـی، بـه ویـژه در زمینـه آمـوزش متوسـطه و همچنین در مؤسسات آموزش زبان، کاربردهای مطلوبی به همراه داشته باشد.

کلیدواژه‌ها: انگیـزش، نوسـانات انگیزشـی، موتـومتر، زبـان‌آمـوزان مقطـعِ ارشد دبیرستان، نوع فعالیت

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تأثیر آموزش موادِ فرهنگی بر انگیزه و نگرشِ خواندن زبان‌آموزانِ انگلیسی بالاتر از سطح متوسط ایرانی

مقالۀ پژوهشی

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چکیده

این مطالعه به بررسی تأثیر آموزشِ مطالبِ فرهنگـی بـر انگیـزۀ خوانـدن و نگـرشِ خواندن در میان دانش‌آموزان با دو جنس مختلف پرداخته‌است. برای دست‌یابی بـه این هدف، ۱۵۰ نفر از دانش‌آموزان انگلیسی به عنوان زبان خارجی، در سطح بالاتر از متوسط شامل ۷۵ نفرمرد و ۷۵ نفر زن انتخاب شدند و به روشِ تصادفی به سه گروه برابر دسته‌بندی شدند. سپس، یک پیش‌آزمون انگیزۀ خواندن برای بررسـی انگیـزه خواندن شرکت‌کنندگان در ابتدای دوره انجـام شـد. در اجـرای امـر، برخـی متـون خواندن مربوط به فرهنگ‌های آمریکایی و انگلیسی (برای گروه الف)، فرهنگ فارسی (برای گروه ب)، و متون بدون مقوله های فرهنگی (برای گروه پ)، آموزش داده شد. پس از آن، پس‌آزمون انگیزه خواندن و پرسش‌نامه نگـرش خوانـدن انجـام شـد. بـر اساس پرسش‌نامۀ انگیزه برای خواندن (ویگفیلد و گاتری، ۱۹۹۷)، نتایج حاکی از آن بود که مطالب آموزشی با محتوای فرهنگی در آن‌ها، انگیـزه خوانـدن زبـان‌آمـوزان ایرانی را بهبود می‌بخشد. افزون بر این، بـر اسـاس پرسـش‌نامـۀ نگـرش ۲۵ سـوالی برگرفته از مقیاس لیو (۲۰۱۵)، معلوم شد که دانشجویان نسبت به استفاده از چنین مطالب فرهنگی در خواندن نگرش مثبت دارنـد. در پایـان، یافتـه‌هـا نشـان داد کـه شرکت‌کننده‌های زن در پس‌آزمونِ انگیزۀ خواندن، عملکـرد بهتـری در مقایسـه بـا مردها داشتند. در پرتوی یافته‌ها، برخـی کاربردهـا ارائـه شـده‌اسـت و دلالـت‌هـای گوناگونی پیشِ رو آورده می‌شود.

کلیدواژه‌ها: فرهنگ، دانش فرهنگی، جنسیت، انگیزۀ خواندن، نگرش خواندن

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تأثیر تلفیـق یـادگیری ترکیبــی بـا روش یـادگیری فعالیت-محــور زبـان بـر خوانـدن و درک مطلـب زبان‌آموزان انگلیسی به عنــوان زبـان خـارجی در ایران

مقالۀ پژوهشی

میر نادر الهی [1]
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چکیده

روشِ یادگیریِ فعالیت-محورِ زبان و یادگیریِ ترکیبی، به یـک ایـدئولوژی در حـوزۀ آموزشِ زبانِ انگلیسی تبدیل شده‌اند و یکی از موثرترین جریان‌ها در آمـوزش زبـان انگلیسی به عنوان زبان خارجی به شمار می‌آیند. بنابراین، پژوهشِ کنونی، به بررسی تأثیر ادغامِ یادگیریِ ترکیبیِ زبان در روش فعالیت-محور یـادگیری زبان در زمینـۀ توانایی خواندن و درک مطلـب زبان‌آموزان سـطح متوسط دختـر و پسـر ایرانـی می‌پردازد. در ابتدا، چهار گروه شامل دو گروه آزمایشی و دو گروه کنتـرل تشـکیل شدند. دو گروه آزمایشی، از طریق تلفیق یادگیری ترکیبی با فعالیت-محور آمـوزش دیدند. در این روش آموزشی، مدل یادگیری ترکیبی اسـتیکر و هـورن (۲۰۱۲) بـا مدل فعالیـت-محــور الـیس (۲۰۱۷) تلفیـق شـد تـا توانـایی درک مطلـب خوانـدن شرکت‌کننده‌ها بهبود یابد. در این راهبـرد نوآورانـه، زبان‌آمـوزان بـا مجموعـه‌ای از فعالیت‌های خواندن و درک مطلب برخط و حضوری متمرکز و غیر متمرکز فعالیت-محور سر و کار داشتند. در حالی که گروه کنترل با استفاده از راهبردهای سـنتی از طریق روش‌های معمول خواندن و درک مطلب آموزش دیدند. بر این مبنا، یافته‌های تحلیلِ کوواریانس نشان داد کـه فراگیـران در گروه‌هـای آزمایشـی، در مقایسـه بـا گروه‌های کنترل به مراتب نمرات بالاتری کسب کردند. افـزون بـر ایـن، یافتـه‌هـای تحلیلِ واریانس دوطرفه نشان‌دهندۀ آن است که هیچ تفاوت معناداری میان عملکرد پسرها و دخترها در دو گروه وجود ندارد. سرانجام، بر مبنایِ کاربردهای آموزشی این

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پژوهش، طراحان برنامه درسی می‌توانند این مفهوم نوآورانهٔ ادغام یادگیری ترکیبـی در روش یادگیری فعالیت‌-محور زبان را در برنامه‌های آموزشی بگنجانند تـا محـیط یادگیری کلاس، به محیط دانش‌آموز-محور تغییر کند. مهم‌تر اینکه، معلمان نیـز بـا طراحی فعالیت‌های برخط و تعاملی خواندن و درک مطلب می‌توانند تفکر انتقـادی و مهارت‌های فراشناختی را در زبان‌آموزان گسترش دهند.

کلیدواژه‌ها: یادگیری ترکیبی/ پیوندی، یادگیری فعالیت‌محور زبـان، درک مطلـب خواندن، راهبردهای خواندن، جنسیت

تأثیر دشواری فعالیت بر کمیت و کیفیت رمزگردانی فراگیران انگلیسی سطح پائین‌تر از متوسط ایرانی

مقالۀ پژوهشی

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بهرام هادیان[*][2]

مهدی واعظ[3]

چکیده

هدفِ پژوهشِ حاضر، مشتمل بر دو بخش است: نخست، این پژوهش به بررسی تأثیر سطحِ دشواریِ فعالیتِ گفتاری بر کمیتِ رمزگردانیِ فراگیرانِ انگلیسی به عنوان زبان خارجیِ سطحِ پائین‌تر از متوسط پرداخته‌است. دوم، تأثیر دشواریِ فعالیتِ گفتاری بر کیفیتِ رمزگردانیِ شرکت‌کننده‌ها مورد بررسی قرار گرفته‌است. شرکت‌کنندگان این پژوهش، ۶۱ فراگیر زبان انگلیسی سطح پائین‌تر از متوسط، در مؤسسه‌ای خصوصی در ایران بودند. این افراد دوازده تمرین در سه سطح آسان، متوسط و دشوار که توسط پژوهشگران طراحی شده بود، را به اجرا درآوردند. یافته‌ها نشان داد که کمتر از ۱۰ درصد از عباراتِ دانش‌آموزان، مشتمل بر رمزگردانی بودند. شرکت‌کننده‌های پژوهش، به صورت معناداری مقوله‌های رمزگردانی را در شرایط تمرین دشوار به کار گرفتند. نتایج نشان دادند که شرکت‌کننده‌ها از رمزگردانی برای هدف‌های گوناگونی از جمله واژگان، ساختار نحوی، محتوا، روشِ تبیین، نوبت‌گیری، و تلفظ بهره گرفته‌اند. فراگیرانِ عملکردهای بیانی، ارجاعی و نقش‌های زبانی مستقیم را به کار بردند تا به اهدافشان برسند و تعداد مقوله‌های مستقیم به واسطۀ سطح دشواری فعالیت نیز افزایش یافته بود. با توجه به مخاطبِ رمزگردانی، تحلیل استنباطی داده‌ها نشان داد که رمزگردانی خود-محور، همکلاسی-محور، معلم-محور، معلم و سپس همکلاسی-محور و همکلاسی و سپس معلم-محور بودند. شرکت‌کننده‌ها، تقریباً نیمی از رمزگردانی را با همکلاسی خود به کار برده بودند؛ اما حاصل فعالیت‌های دشوارتر، استفادۀ بیشتر از مقوله‌های رمزگردانی معلم-محور بود.

کلیدواژه‌ها: رمزگردانی، مهارت گفتاری، سطح دشواری فعالیت، اهداف رمزگردانی، عملکردهای زبانی

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هرکــول پــوآرو و روانشناســی جنــایــت: جنایــت و تفتیش در رمانهای منتخب آگاتا کریستی

مقالۀ پژوهشی

اسماعیل نجار *١
فاطمه صالحی وزیری ٢

چکیده

در پژوهش حاضر، برآنیم تا به شناسایی مفهوم روانشناسی جنایی پرداخته و برخی از بخشهــای اصلــی آن در شخصیتپردازی هرکول پوآرو را تحلیـل کنیـم. بـا بهرهگیری از رویکردی بینارشتهای، با خوانش و طراحی دقیقی از جرم و نظریههـای روانشناختی (به ویژه رفتارگرایی)، بـه بررسـی شـگردهای نمایهسـازیِ جنـایی در رمانهای کارآگاهی آگاتا کریستی میپردازیم. به ویـژه، بـه نظریـۀ ایـان مـارش در معرفی مجموعهای از توصیفهای رفتار جنایی و ویژگیهـای وسـترا و همکـاران در شناسایی مشخصههایی که تلاش یک کارآگاه را مؤثر مـیکنـد، اسـتناد مـیکنـیم. تمرکز نگارندگان بر رَویههای روانشناختی است که در فرایند معما (چگونگی ایجاد و حل کردن آنها)، وجود دارد از جمله وظیفۀ کارآگاهان در رمزگشایی رمزهـا، در پرتوی فشارهـای درونـی و بیرونـی کـه بـه آنهـا وارد شـده و چگونـه در تصمیم نهاییشان تأثیر میگذارد. سپس، مفهوم نمایهسازی را آنگونه که یک کارگاه به کار میگیرد، شرح داده و به ترسیم پیشداوریهای تکراری کـه بـر حکـم نهـایی یـک پرونده تأثیر میگذارند، خواهیم پرداخت. در پایان، نحوۀ تکمیـل مراحـل بـالا را بـا پیادهسازی بر روی سه رمان پرفروش آگاتا کریستی، قتل در قطار سریعالسیر شـرق (١٩٣٤)، قتل الفبایی (١٩٣٦) و قتل در خوابگاه دانشجویی (١٩٥٥)، که هر سـه در بردارنده هرکول پوآرو به عنـوان شخصیت اصلـی هسـتند، بـه تصـویر مـیکشـیم. شخصیت پوآرو، با مشخصات جنایی بیاشتباه خود، شاهدی است بر اینکـه چگونـه کریستی همزمان از مفهوم و کنش روانشناسی جنایی در داستان هم تأثیر پذیرفتـه و هم بر آن تأثیر گذاشتهاست.

کلیدواژهها: روانشناسی جنایی، آگاتا کریستی، هرکـول پـوآرو، رفتـارگرایی، قتـل الفبایی.

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درک نحوی در بیماران دستورپریش فارسـی‌زبـان: گواهی دیگر در باب فرضیه حذف رد

مقالۀ پژوهشی

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چکیده

تاکنون، سه نظریه مهم به بررسیِ ماهیـت و میـزانِ نقصـانِ دسـتوری، در بیمـاران زبان‌پریش پرداخته‌اند. از این منظر، در حالی‌کـه دو نظریـۀ کـنش-محـور دسـتور پریشی، یعنی فرضیه آستانۀ کنشی و فرضیۀ نگاشـتی، رویکـردی بسـیار کلـی را در زمینۀ این نقص به کار می‌گیرند، فرضیه حذفِ رد، تبیینی بسیار موشکافانه در بـاب ماهیت و همچنین حوزه‌ای بودنِ مغز در پـیش مـی‌گیـرد. مقالـۀ حاضـر، بـه مثابـه نخستین پژوهش در بافتِ فارسی، می‌کوشد تا کارایی نظریۀ مزبور را در چهار بیمار دستورپریشِ فارسی‌زبان که از جنبۀ جنسیت، تحصیلات و سن، با یـک‌دیگـر همتـا شده بودند، را با همین تعداد گـروه کنتـرل و پـس از اجـرای یـک آزمـون قضـاوت دستوری به محک آزمون گذارد. به منظور ارزیابی عملکـرد آزمـودنی‌هـا، ۹۰ جفـت جملۀ خوش‌ساخت و غیرِ خوش‌ساخت، به شکل تصادفی در اختیار آزمودنی‌هـا قـرار گرفت که بر مبنای آن، آزمودنی‌ها می‌بایست دیدگاه خویش را نسبت بـه دسـتوری بودن این جمله‌ها، در یک فعالیتِ قضاوت دسـتوری بیـان کننـد. انـواع جملـه‌هـای آزمون‌شدۀ این پژوهش، مشتمل بر جمله‌های عـاملی، اسـنادی مفعـولی، اسـنادی فاعلی، مجهول عاملی، مجهول روان‌شناختی و پرسش‌واژۀ محتوایی بودند. یافتـه‌هـا، همسو بـا پـیش‌بینـی فرضیه حـذف رد، نشـان داد کـه بیمـاران دسـتورپریش، در ساختارهایی که در آن‌ها حرکت سازه‌ای مشاهده می‌شـود، بـا چـالش‌هـای زیـادی روبه‌رو هستند. در مقابل، آن‌ها در سـاختارهای عـاملی، از درک مطلـوبی برخـوردار بودند. کاربردهای نظری و روان‌شناختی یافته‌ها مورد بحث قرار گرفت.

کلیدواژه‌ها: زبان‌پریشی، پردازش، عصب‌شناختی، حوزه‌ای، فرضیۀ حذفِ رد

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عوامل و فراهم‌سازهای انگیزشی و متنی در خواندن فراگیران زبان انگلیسی ایرانی: بهره‌گیری از تأملات نیمه‌ساختاری نگارش‌یافته در طول فرایند یادگیری تأملی

مقالۀ پژوهشی

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چکیده

درک مطلب ماهیت چندبعدی دارد و عوامل و فراهم‌سازهای گوناگونی بـر عملکـرد خواندن زبان‌آموزان تأثیر می‌گذارند. پـژوهش حاضـر، جهـت‌گیـری‌هـای انگیزشـیِ خواندنِ فراگیران زبان انگلیسی ایرانی را ارزیابی کـرده و عوامـل و فـراهم‌سـازهای انگیزشی و متنی در خواندن را با توجـه بـه تـأملات فراگیـران مـورد بررسـی قـرار داده‌است. شرکت‌کنندگانِ پژوهش حاضر، ۳۲ زبان‌آمـوزِ دبیرسـتانی ایرانـی بودنـد. ترجمۀ فارسیِ پرسش‌نامۀ انگیـزه بـرای خوانـدن در انگلیسـی کـه توسـط کومیـان (۲۰۱۳) تهیه شده بود، برای تعیین جهت‌گیری ابعاد انگیزشی شـرکت‌کننـدگان بـه کار رفت. تجزیه و تحلیل یافته‌های پرسش‌نامه نشان داد که میـانگین نمـرۀ انگیـزه بیرونی، بالاتر از میـانگین نمـره انگیـزۀ درونـی اسـت. عوامـل انگیزشـی و متنـی و فراهم‌سازهای دریافتی با تجزیه و تحلیل کیفی تأملات نیمه‌ساختاری نگارش‌یافتـۀ شرکت‌کننده‌ها در طی فرایند یادگیری تأملی استخراج گردیدنـد. نتایج بـه‌دست‌آمـده از پرسش‌نامه و تجزیه و تحلیل تأملات می‌توانـد آگـاهی معلمـان نسـبت بـه عوامـل مؤثر در خواندن را بر اساس ادراک فراگیران افزایش داده و به آن‌ها کمـک کنـد تـا بازخورد مؤثر و فرصت‌های مناسب یادگیری را فراهم کنند.

کلیدواژه‌ها: تأمل، خواندن، متن، انگیزه، فراهم‌سازها

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نقش راهبردهای کاربردشناختی در گفتمانِ حقوقی: بررسی موردیِ شهرِ شیراز

مقالۀ پژوهشی

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چکیده

پرسش‌ها، مهم‌ترین و رایج‌ترین ویژگیِ گفتار حقوقی هستند. پرسش، سلاحی است که برای آزمودن و به چالش کشیدن گفته‌های افراد عامی به کار بـرده مـی‌شـود و همچنین ابزاری برای ایراد اتهام است. بر مبنای ویژگی‌هـای دسـتوری و سـاختاری سؤال پرسیدن، که بخش‌های مهمی از هر تحلیل زبانی هستند، پرسـش‌هـا بـه دو دسته باز و بسته تقسیم‌بندی می‌شوند. معیار انتخـاب یـک صـورت زبـانی از دیگـر صورت‌های ممکن، با بهره‌گیری از راهبردهای کاربردشناختی تعیـین مـی‌شـود. بـه عبارت دیگر، پرسشگر، بر پایۀ راهبردهای کاربردشناختی که طیِ پرسـیدن بـه کـار می‌گیرد، یک صورت پرسش را از میان دیگر صورت‌ها بر می‌گزیند. جستار حاضر بر آن است تا جایی‌که مشخصه‌های ساختاری و کاربردشناختیِ پرسش‌ها تلاقـی پیـدا می‌کنند تا بدین هدف دست یابند، را بیابد. به این منظور، به تلفیق دو رویکرد کمی و کاربردشناختی پرداختیم. داده‌های پژوهشِ حاضر، در جریان فرایندهای بـازجویی چهار پرونده در دادگاهِ شهر شیراز به دست آمده‌است. یافته‌های پژوهش نمایانگر آن است که راهبردهای کاربردشناختی تعیین‌کننده نوع صـورت‌هـای سـؤال هسـتند و همچنین پرسش‌های بسته بیشترین کاربرد را در فرایند بازجویی دارنـد، زیـرا دارای بیشترین میزان کنترل‌کنندگی هستند که می‌توانند گفته‌های مخاطب را به چـالش بکشند.

کلیدواژه‌ها: زبان‌شناسـی قضـایی، گفتـار حقـوقی، سـؤال پرسـیدن، صـورت‌هـای پرسشی، راهبرد کاربردشناختی.

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تأثیر نوع فعالیت و شاخص بار درگیــری ذهنــی بــر میزان یادگیریِ تصادفیِ واژگان و پایداری آن‌هــا در زبان‌آموزان ایرانی

مقالهٔ پژوهشی

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چکیده

دانش واژگانی، نقش مهمی در ارتباط دارد. بنابراین، پژوهش‌هـای گونـاگونی، تـأثیر عواملِ مختلف بر یادگیریِ واژگان در زبان دوم را مورد بررسی قرار داده‌اند. پـژوهش تجربی حاضر بر آن است تا در نظر گرفتن تأثیر نوع فعالیت و شاخصِ درگیری بـر رویِ فراگیریِ تصادفیِ واژگان انگلیسـی توسـط زبان‌آمـوزان ایرانـی، بـه ارزیـابی پیش‌بینی‌های فرضیه بار درگیـریِ لافـر و هالسـتاین (۲۰۰۱) بپـردازد. نظریـه بـار درگیری، پیش‌بینی می‌کند که فعالیت‌های با شاخص درگیری یکسان، فراگیری‌هـای برابر واژگان را در پی دارند. به این منظور، ۴۵ زبان‌آموز ایرانی با سطح زبان بالاتر از متوسط یکی از چهار فعالیت را، با شاخص درگیری یکسان (یعنـی، درک مطلـب بـا اجازه استفاده از لغت‌نامه، تمرین‌های کلوز با اجازه استفاده از لغت‌نامـه، اسـتنتاج و جمله‌نویسی به علاوه معانی واژگان در فارسی+ انگلیسی) انجام دادند. دانش تولید و ادراک واژگان هدفِ زبان‌آموزان یک بار بی‌درنگ پس از انجام فعالیت و باری دیگـر، سه هفته بعد سـنجیده شـد. بـرای مقایسهٔ عملکـرد مشـارکت‌کننـدگان در انجـام فعالیت‌هـا، آنـوای مخـتلط بـین افـراد اجـرا شـد. نتـایج نشـان داد کـه بـرخلاف پیش‌بینی‌های فرضیه بار درگیری، عملکرد زبان‌آموزان بر روی چهار فعالیت مختلف به صورت معناداری متفاوت بود، در حالی که این فعالیـت‌هـا بـار درگیـری یکسـان داشتند. نتایج حاکی از آن است کـه عمـق پـردازش و درگیـری عوامـل مهمـی در فراگیری واژگان هستند. با این وجود، به نظر می‌رسد، اهمیـت نسـبی هـر یک از مؤلفه‌های درگیری ممکن است نیاز به بازبینی داشته باشد.

کلیدواژه‌ها: یادگیریِ تصادفیِ واژگان، نظریهٔ بار درگیری، عمق پـردازش، فعالیـت، فراگیری زبان دوم.

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فهرست مطالب

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مجله افق‌های زبان

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