The Impact of Message Units as 'Chunks' on EFL Production

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ABSTRACT

This study aimed to investigate the effect of explicit teaching of language chunks on the writing performance of Iranian English as a foreign language (EFL) learners. A total of 42 low-intermediate homogeneous female learners aged between 13 and 14 years from a junior high school, provided the study with randomly assigned control group (N=22) and an experimental group (N=20). During 20 sessions of instruction, language chunks in short paragraphs, dialogues, and reading texts were focused on only on the experimental group. The language chunks and their first language (L1) equivalents were specified in order to determine the boundaries of chunks to convey an intended message. Development of learners' writings was examined through writing tasks that were administered twice - before and after the treatment. Statistical analyses of independent samples t-test revealed significant improvement of the experimental group in their production and overall general writing, whereas moderate improvement was observed in the control group. Hence, the role of chunking strategy in language instruction domain has the potential to improve the writing quality of learners. The findings of this study can be beneficial for learners, teachers, teacher educators, and syllabus designers in foreign language (FL) contexts so as to improve the learners' language production.

Keywords: Language production, lexical chunks, lexis, meaningful language units

INTRODUCTION

It has been agreed that formulas or phrases in the form of a combination of two or more words have the potential to convey meanings (Hakuta, 1974; Halliday, 1975; Pawley & Syder, 1983; Nattinger & De Carrico, 1992; Lewis, 1993; Ellis, 2003; McCarthy, 2004; Granger, 2011). On the basis of evidence currently available, the

meaning potentiality of these language units not only forms the basis for more language use but can serve as a repertoire of messages or meanings that learners use to sustain their production of real time language. According to Lewis (1993), lexis as a basic component of effective communication should be considered as an essential principle in any meaning-centred syllabus. Lewis (1997) regards language as containing mostly multi-word prefabricated chunks and not traditional grammar and vocabulary. It is worth reminding that foreign language learning, like a puzzle that needs to be assembled with accurate pieces in appropriate places, strives to have enough ready-made message units in learner's mind as repertoire of pieces for use. Therefore, lack of adequate repertoire of those accurate and appropriate pieces are the grounds for hesitation, gaps and deficiencies in writing and speech production, thereby, intelligibility does not occur.

With expanding literature on the role of positive and negative evidence, namely 'frequency of input' and 'noticing/consciousness-raising' respectively, Gass and Mackey (2002) argue that positive evidence alone seems to be insufficient to acquire full information about the target language. According to Schmidt's (2010) Noticing Hypothesis, learners must attend to and notice linguistic features of the input that they are exposed to if those forms are to become intake. A closer look at the issue indicates that in foreign contexts, the quality of conveying meaning as a consciousness-raising technique, is very much related

to finding an exact and appropriate L1 equivalence for the lexical items. Lewis (1997) states that "correctly identified chunks do have equivalents in other languages, and ignoring this fact, makes the task of second language (L2) teaching unnecessarily burdensome" (p. 64). Lexical item is a social institution and it has a conventional label for a conventional concept (Pawley & Syder, 1983). A corpus-based study about semantic aspect of the phrasal verbs (as part of lexical chunks) by Zarifi and Mukundan (2015) revealed that these units are more intuitively than empirically motivated. However, recent investigations into positive correlation between teaching lexical chunks and language proficiency has provided ample support, such as Taguchi (2007), Durrant (2008), Zhao (2009), Chu & Wang (2011), Li (2014), and also Iranian researchers, Ranjbar, Pazhakh and Gorjian (2012), Goudarzi and Moini (2012), Eidian, Gorjian and Aghvami (2014), and Araghi, Yousefi-oskuee and Salehpour (2014). Ranjbar et al. (2012) focus on the effect of using lexical chunks on fluency on Iranian university students' paragraph writing. The participants were exposed to teaching these units of language for an entire academic semester. The findings revealed significant improvement on writing fluency among students. Further, Li (2014) found lexical chunks significant to college students writing, as if by increasing the input of English lexical chunks, these combinations can reduce the negative transfer of the native language in their writing. However, both studies were conducted on university

students. Nevertheless, chunking strategy has not been examined on school students' writing in Iran. These students usually have difficulty in initiating a writing text or a conversation, and it seems that they cognitively do not have a repertoire of planned language units ready in their mind in order to convey their messages. Thus, the present study was proposed to address this gap. In a small scale classroom study, the Iranian EFL learners were exposed to teaching these combinations in order to internalise them semantically in their linguistic system over time and thereby, improving their language production. This study was aimed to answer the following questions and accordingly to test their null hypotheses:

1. Is there any significant difference between the chunk instructed group (CIG) and the control group (CG) in the number of lexical chunks produced in the writing tasks?

2. Is there any significant difference between the two groups' grammatical accuracy in writing?

3. Is there any significant difference between the two groups' overall general writing ability?

RELATED LITERATURE

The idea of lexical chunks/phrases/bundles use, as an essential component of language by linguists (Halliday, 1966; Yorio, 1979; Pawley & Syder, 1983; Sinclair, 1991; Nattinger & DeCarrico, 1992; Howarth, 1998; Lewis, 1993, 1997, 2000; Wood,

2002), has gained high status in second language learning. Linguists have used different terms for these language units such as holophrases, prefabricated routines and patterns, prefabricated phrases, clusters, formulaic speech, fixed grammatical frames, gambits, lexicalised sentence stems, speech formula, formulaic sequences, slot-and-frame patterns, formulas, unanalysed language or wholes, and multi-words. But the term 'chunk' was first used by Lewis (1993).

There have been extensive premises on analysing the lexical chunks (Jespersen, 1924; Coulmas, 1979; Pawley & Syder, 1983; Peters, 1983; Chaudron & Richards, 1986; Nattinger & Decarrico, 1992; Lewis, 1993; Ferguson, 1996; Biber, 2006; Ellis, Simpson-Vlach & Maynard, 2008; Allen, 2009; Schmitt, 2012). The linguists' classification of these units, according to Bogart (2011), ranges from purely statistical to linguistic to psychological. The nature of statistical and psychological features is intentional and indicative of the key properties of lexical chunks such as frequency, non-compositionality and being stored and retrieved as a unified whole in human memory (Bogart, 2011). Among the linguists' classification, the agreeable one is that of Lewis (1993) who classified them as 'words' such as *any, almost, probably*, 'multiword items', which can usefully be sub-categorised to collocations and institutionalised expressions, and 'polywords', the messiest category and usually relatively short, two or three words, which may belong to any word class, such

as nouns, phrasal verbs such as *taxi rank, record player, put off, look up, of course* (Lewis, 1993). Lewis states that boundaries between chunks have been unrecognised and the ability to chunk language successfully is central to the theoretical understanding of how language works. Collocations, which constitute a significant area of lexical phrases, have been sub-categorised as fixed expressions (conventionalised forms with their pragmatic functions, like *certainly not, not yet, just a moment*); and as semi-fixed expressions/sentence frames and heads (frames with slots for various fillers), like *That's all very well, I see what you mean*) (Lewis, 1997). According to Lewis (1997), "lexis covers single words and multi-word objects which have the same status in the language as simple words, the items we store in our mental lexicon ready for use" (p. 217). Coulmas (1979) sees a lexical chunk including at least two words that are phonologically coherent. Moreover, Sinclair and Mauranen (2006) decline to provide an explicit definition for chunks, instead, they state that human readers will identify them intuitively; although they presented two basic types, those that organise the discourse and those that transmit the message or content, with more specific sub-types.

With regard to lexical chunk functions, Nattinger and DeCarrico's (1992) *form/function composites* (a combination of competence, performance and pragmatics) and Lewis's (1993) *grammaticalised lexis* (and not lexicalised grammar) are among the functions labelled for these combinations. On another line, Halliday's (1994) theory of 'language as a social semiotic' sees language as cultural acts and contends that the semiotics of the culture is at the level of grammatical constituent, at the level of clause. However, lexical chunks seem to carry with them three main functions; they can be considered as: Meaning-making phrases (Lewis, 1993; Banikowski, 1999; McCarthy, 2004; Ellis, 2003); Memory Enhancing Phrases (Jespersen, 1924; Banikowski, 1999); and Fluency Enhancing Phrases (Pawley & Syder, 1983; Lennon, 1990; Lewis, 1997; Wood, 2002; Hyland, 2008; Segalowitz, 2010).

Chunking Strategy in Input Perception and Output Production

Research has shown that chunking in perception and production do not occur naturally in adults like in children (nature vs. nurture). As stated by Christophe, Peperkamp, Pallier, Block, and Mehler (2004), "experimental evidences have shown that the lexical segmentation strategy is actually exploited by adults" (p.524). In second language acquisition (SLA), adults, there is a need for strategy instruction to understand message units as wholes and away from segmentation. Pawley and Syder (1983) contend that reliance on ready-made expressions does not detract creativity in spoken discourse; rather, it creates facilitation to use new sentences since they need little encoding work and the speaker can channel his energies into other activities. The efficacy of memorising lexical chunks in L2 performance has been explored by Wray and Fitzpatrick

(2008) that memorising and rehearsing conversational turns have helped L2 assisted learners in real-life interaction to a great extent. Furthermore, Bygate (1988, cited in Wood, 2002) observed that subclausal units or fragments make up a great deal of spontaneous conversational interaction in English, a great deal of production and monitoring of language that one can control the conversation through their use.

Empirical evidence for the positive correlation between Chinese L2 learners' use of lexical chunks and language production was provided by Zhao (2009). According to Zhao, these units decrease L2 learners' pressure to decode individual words, thereby, providing an easily retrievable frame for language production. Based on Araghi et al's (2014) study, engaging students in collecting appropriate bits of chunks, first through discussion on an intended topic to elicit key ideas in order to paint a general image for heightening their lexical density, proved beneficial to stimulate learners to enter the complexity of writing text. Along similar line, the improvement of reading comprehension through lexical chunks use has been explored by Sadighi and Sahragard (2013) and Sadat-kiaee, Heravi-moghaddam and Moheb-hosseini (2013). Sadighi and Sahragard (2013) investigated the effect of lexical collocations on EFL learners' reading comprehension with the purpose of considering the different proficiency levels of the subjects. Their finding indicated that the use of high lexical collocations in the text of different levels plays a crucial role in enhancing learners' reading comprehension. Further, different proficiency levels of the participants did not affect their performance on lexical collocation tests. It was in contrast to Zhang's (1993) contention that good writers, native or non-natives, perform significantly better than poor writers on the writing test (Sadighi & Sahragard, 2013). Moreover, Sadat-kiaee, Heravi-moghaddam and Moheb-hosseini (2013) lend further support to the effective teaching of collocations which led to enhanced level of perception in EFL reading comprehension. On the other hand, Ziafar and Maftoon (2015), in regard to pragmatic competence as one of the main aspects of language learners' proficiency, validate the assumption that providing context for pragmatic units, paraphrasing, and input enrichment techniques can give confirmatory evidence for the effectiveness of these combinations on enhanced pragmatic competence of EFL learners.

METHOD

Design

A quasi-experimental design was followed where two homogeneous groups of low-intermediate level students were selected through non-random convenience sampling. This was because they had previously been selected for this level through the school placement test and they were also the exact students who we had to work with.

Participants

The participants were 42 Iranian female EFL learners aged between 13 and 14 years from a junior high school in Tehran. They had been enrolled in the second grade and

were all native Persian speakers with similar experiences in terms of learning English in free language institutes out of school. The result of the initial sampling, in this case cluster sampling, was the selection of two classes of low-intermediate level with overall 52 learners, composed of 27 and 25 students each. Although the students had already passed a placement test carried out by the school authorities, they were given a Nelson Language Test (200A) to ascertain their proficiency level. This resulted in the selection of 42 learners whose test scores were within one standard deviation below or above the mean score of the whole sample. The learners were divided into two groups of 22 and 20 students that served as the control and experimental group respectively. The other 10 students with very high or very low scores on homogeneity test were not considered in the study although they stayed throughout the entire procedure.

Instruments

The research tools included: 1) instructional materials which were the learners' textbook, the 'Hey There! Book 2' by José Luis Morales and Cathy Myers (2011), and its workbook. The instructor was responsible to chunk the short paragraphs, dialogues and reading texts in advance, only for the experimental group; 2) a homogeneity measurement test, as mentioned before; 3) two tests of paragraph writing in the form of an expository composition of about 150 words each, one adopted as the pre-test and the other as the post-test. The topics were selected from 'Hey There! Book 2'

(Appendix A); and 4) a modified version of Analytic Scoring Scale by Cohen (1994) and Jacobs, Zingraf, Wormuth, Hartfield, and Hughey (1981) that was used as the rubric for scoring grammatical writing quality between groups. The rubric contains five criteria: the content, organisation, grammar, language use and mechanics. Language use (the choice of vocabulary and register) and grammar (grammaticality at sentence-level structure) in this rubric were the main criteria in deciding the level of accuracy of learners' writings. Accuracy in this research refers to the ability to produce discourse or sentences using correct grammar and appropriate vocabulary.

Procedure

During the school semester, the comparison group (CG) underwent the usual instruction of the materials from the 'Hey There! Book 2', whereas the chunk instructed group (CIG) received the classroom instruction on the same materials, along with learning the chunks available in textbook materials. The instructional process lasted for 20 sessions, twice a week, during the first semester of 2014 school year. The teacher reviewed and maximised the use of relevant chunks that the CIG participants encountered in each unit by focusing on their meanings so as to enable the students to get a better understanding of comprehension exercises and discussion activities; while in the listening section, the language chunks were specified by the teacher prior to the activity, along with encouraging students to be more attentive to the phonology of the chunks.

Most often, the teacher asked the students of CIG to work on another text (which is usually available in their workbook) and specify the key phrases by putting slashes between them (however, the students' choices of the phrases overlapped in form). Consequently, the teacher was to arrange to go over all the students' choices of chunks in the next session in order to be certain that they are totally correct. All through these activities, the CG received the materials without focusing on any language chunks. But an accurate understanding of language chunks, in the case of CIG participants, was emphasised and for both groups, understanding the basic grammatical rules. Both groups were determined to have the L1 equivalents through implicitly applying them by the teacher: at the word-level for the CG and at formula/chunk-level for CIG participants.

The participants' spontaneous writing samples, before and after the treatment, were coded twice: 1) regarding the number of chunks the learners produced; and 2) with regard to grammatical accuracy in their writing by using the rubric mentioned earlier. Accordingly, the learners' use of language chunks appropriately and grammatically correct were important and

confusing chunks were left out and not considered in the analysis. However, the writing samples were scored analytically by two teachers. They were experienced EFL teachers with adequate knowledge in writing pedagogy. Holistically then, with regard to grammaticality and writing quality on the whole, the samples were scored by the same teachers independently the first time and their averages as the final scores for learners' overall general writing were recorded.

Data Analysis

Data obtained from both expository writing tasks as pre-test and post-test concerning lexical chunk production and grammatical accuracy were analysed using SPSS IBM 22, 2013. The KR-21 was run to probe the reliability of the test scores; the reliability indices for the pre-test and post-test of the lexical chunks production were .83 and .88 respectively. These were .70 and .87 for the pre-test and post-test of grammatical accuracy (Table 1).

A factor analysis through the varimax rotation was carried out to probe the underlying construct of the Nelson test, pretests, and posttests of both lexical chunks production and grammatical accuracy. The SPSS extracted two factors which accounted

Table 1
KR-21 Reliability Indices

	N	Mean	Variance	
PreChunk	42	27.88	67.083	0.83
PostChunk	42	37.29	67.331	0.88
PreGram	42	38.95	27.120	0.70
PostGram	42	45.40	28.832	0.87

for 76.30% of the total variance (Table 2).

As displayed in Table 3, the pretest and posttest of lexical chunks production and grammatical accuracy were loaded on the first factor while the Nelson test were loaded alone on the second factor. These results suggested that the pretest and posttest of lexical chunks production and grammatical accuracy measured the same underlying construct which was different from general language proficiency.

Table 3
Rotated Component Matrix

	Component	
	1	2
PostChunk	.876	
PreChunk	.871	
PostGram	.836	
PreGram	.731	
Nelson		.971

a. Rotation converged in 3 iterations.

RESULTS

The writing scores in the pre-tests and post-tests were the main source of data. The research questions posed in this study were probed through parametric independent samples t-tests. The subjects' performances on the tests were independent of one another that is the treatments involving group work or pair work were not administered in this study. The dependent variables (writing tasks) were measured on an interval scale. The assumption of normality was also met. Meanwhile, the ratios of skewness and kurtosis over their respective standard errors were within the ranges of +/- 1.96 (Table 4).

The Nelson general language proficiency test was administered to 52 subjects. Based on the mean (M = 34.62), +/- one standard deviation (SD = 10.50), 42 subjects were selected to participate in the main study. The KR-21 reliability index for the Nelson test was .92 (Table 5).

An independent t-test was run to compare the CIG and the CG's mean scores on the Nelson test. As displayed in Table 6, the CIG (M = 39.80, SD = 2.98) and the CG (M = 38.95, SD = 3.67) showed almost the same means on the Nelson test.

The result of the independent t-test ($t_{(40)}$ =.81, P >.05, R =.12, representing a weak effect size) (Table 7) indicated that there was no significant difference between

Table 2
Total Variance Explained

Components	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	%of Variance	Cumulative %	Total	%of Variance	Cumulative %	Total	%of Variance	Cumulative %
1	2.783	55.657	55.657	2.783	55.657	55.657	2.760	55.194	55.194
2	1.032	20.645	76.302	1.032	20.645	76.302	1.055	21.109	76.302
3	.663	13.255	89.557						
4	.350	7.002	96.559						
5	.172	3.441	100.000						

the two groups' mean scores on the Nelson test. Therefore, they enjoyed the same level of general language proficiency prior to the administration of the treatment.

It should be noted that the assumption of homogeneity of variances was met (Levene's F = .627, P > .05). Thus, the first row of Table 7 (Equal Variances Assumed) is reported.

Pretest Analysis of Lexical Chunks Production and Grammatical Accuracy

Data obtained from the spontaneous writing task implemented prior to the treatment were analysed. Based on the results of the independent t-test on the pre-test scores of CIG and CG, in regard to lexical chunks production, the CIG (M = 35.55, SD = 11.26) and the CG (M = 34.91, SD = 9.66)

Table 4
Testing Normality Assumption

		N	Skewness			Kurtosis		
Group		Statistic	Statistic	Std. Error	Ratio	Statistic	Std. Error	Ratio
CIG	Nelson	20	.479	.512	0.94	-.552	.992	-0.56
	PreChunk	20	.075	.512	0.15	-1.633	.992	-1.65
	PostChunk	20	-.033	.512	-0.06	-1.678	.992	-1.69
	PreGram	20	-.757	.512	-1.48	-.476	.992	-0.48
	PostGram	20	-.285	.512	-0.56	-.840	.992	-0.85
	Writing	20	-.165	.512	-0.32	-1.418	.992	-1.43
	Valid N (listwise)	20						
CG	Nelson	22	.377	.491	0.77	.507	.953	0.53
	PreChunk	22	.046	.491	0.09	-1.343	.953	-1.41
	PostChunk	22	-.127	.491	-0.26	-1.044	.953	-1.10
	PreGram	22	-.481	.491	-0.98	-.546	.953	-0.57
	PostGram	22	-.360	.491	-0.73	-.633	.953	-0.66
	Writing	22	-.149	.491	-0.30	-1.067	.953	-1.12
	Valid N (listwise)	22						

Table 5
Descriptive Statistics, Nelson Test

	N	Mean	Std. Deviation	Variance	KR-21
Nelson	52	34.62	10.507	110.398	.92

Table 6
Descriptive Statistics, Nelson Test by Groups

	Group	N	Mean	Std. Deviation	Std. Error Mean
Nelson	CIG	20	39.80	2.984	.667
	CG	22	38.95	3.671	.783

showed almost the same means on the pre-test of chunks (Table 8).

The result of the independent t-test ($t_{(40)}$ =.19, P >.05) indicated that there was no significant difference between the two groups' mean scores on the pre-test of chunks production.

Consequently, the result of the independent t-test on the pre-test scores of CIG and CG, in regard to grammatical accuracy in writing, showed that the CIG (M = 38.40, SD = 5.04) and the CG (M = 39.45, SD = 5.42) enjoyed almost the same level on the pre-test of grammatical accuracy (Table 9).

The result of independent t-test ($t_{(40)}$ =.65, P >.05, R =.10) indicated no significant difference between the two groups' mean scores on the pretest of grammatical accuracy. Therefore, the participants possessed the same level of ability in grammatical accuracy prior to the administration of the treatment.

Research Question One

The first research question was: Is there any significant difference between the number of lexical chunks produced by learners of CIG and CG? Hence, the administration of an independent t-test on the post-test of lexical chunks mean scores produced by groups revealed that the CIG (M = 53.55, SD = 7.82) outperformed the CG (M = 41.05, SD = 8.66) on the post-test of chunks produced (Table 10).

The result of the independent t-test ($t_{(40)}$ = 4.89, P < .05, R = .61, representing a weak effect size) (Table 11) indicated that there was a significant difference between

Table 7
Independent Samples Test, Nelson Test by Groups

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal Variances Assumed	.627	.433	.814	40	.421	.845	1.039	-1.254	2.945
Equal Variances not Assumed			.822	39.537	.416	.845	1.028	-1.234	2.925

Table 8
Descriptive Statistics, Pretest of Lexical Chunks by Groups

	Group	N	Mean	Std. Deviation	Std. Error Mean
Pretest of Chunks	CIG	20	35.55	11.269	2.520
	CG	22	34.91	9.665	2.061

the two groups' mean scores on the post-test of chunks production. Therefore, the first null-hypothesis was rejected.

It should be noted that the assumption of homogeneity of variances was met (Levene's F = .20, P > .05). That is why the first row of Table 11 (Equal Variances Assumed) is reported.

Research Question Two

The second research question was: Is there any significant difference between the two groups' writing grammatical accuracy? Therefore, an independent t-test was run to compare the CIG and the CG's mean scores on the post-test of grammatical accuracy in order to probe the second research question. The CIG (M = 49.15, SD = 3.10) outperformed the CG (M = 42, SD = 7.40) on the post-test of grammatical accuracy (Table 12).

The result of the independent t-test (t $_{(36)}$ = 5.86, P < .05, R = .69, representing a large effect size) (Table 13) indicated that there was a significant difference between the two groups' mean scores on the posttest of grammatical accuracy, rejecting the second null-hypothesis.

Table 9
Descriptive Statistics, Pretest of Grammatical Accuracy by Groups

	Group	N	Mean	Std. Deviation	Std. Error Mean
Pretest of Grammatical Accuracy	CIG	20	38.40	5.041	1.127
	CG	22	39.45	5.422	1.156

Table 10
Descriptive Statistics, Post-test on Production of Chunks by Groups

	Group	N	Mean	Std. Deviation	Std. Error Mean
Posttest of Chunks	CIG	20	53.55	7.824	1.749
	CG	22	41.05	8.666	1.848

Table 11
Independent Samples Test, Post-test on Production of Chunks by Groups

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal Variances Assumed	.201	.656	4.890	40	.000	12.505	2.557	7.337	17.672
Equal Variances not Assumed			4.915	39.999	.000	12.505	2.544	7.362	17.647

It should be noted that the assumption of homogeneity of variances was not met (Levene's $F = 5.35$, $P < .05$). That is why the second row of Table 13 (Equal Variances not Assumed) is reported. The t-test table has two t-values and two degrees of freedom. If the assumption of homogeneity of variances is not met, the second row should be reported. Despite the level of contrast, which is significant as $P < .05$, the analysis of independent t-test represents the significant difference of group means on the post-test of grammatical accuracy (Table 12). Therefore, the second null hypothesis is rejected.

Research Question Three

The third research question was: Is there any significant difference between the two groups' overall general writing abilities? Thus, an independent t-test was run to compare the CIG and the CG's mean scores (the average scores of the chunks produced and grammatical accuracy) in order to answer the third research question. It was found that the CIG ($M = 91.65$, $SD = 8.21$) outperformed the CG ($M = 74.55$, $SD = 10.85$) on general writing ability (Table 14).

The results of the independent t-test ($t_{(40)} = 5.71$, $P < .05$, $R = .67$, representing a weak effect size) (Table 15) indicated that there was a significant difference between the two groups' mean scores on the general writing ability. Thus, the third null-hypothesis was rejected. The CIG showed a significant improvement in general writing after the administration of the treatment.

Table 12
Descriptive Statistics, Post-test of Grammatical Accuracy by Groups

	Group	N	Mean	Std. Deviation	Std. Error Mean
Posttest of Grammatical Accuracy	CIG	20	49.15	3.100	.693
	CG	22	42.00	4.701	1.002

Table 13
Independent Samples Test, Post-test of Grammatical Accuracy by Groups

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal Variances Assumed	5.356	.026	5.756	40	.000	7.150	1.242	4.640	9.660
Equal Variances not Assumed			5.868	36.631	.000	7.150	1.218	4.680	9.620

The assumption of homogeneity of variances was also met (Levene's F = 1.65, P > .05). That is why the first row of Table 15 (Equal Variances Assumed) is reported. Therefore, the above tables confirm that chunking strategy helps the chunk instructed students' recognition of language use and production compared with their group's counterpart.

DISCUSSION

Based on the results, the CIG participants who had been provided with instruction on lexical chunks made statistically significant improvement in their production of language units and grammatical sentences. In fact, the three null hypotheses were rejected. However, the first question was to investigate the significant difference between CIG and CG on the production of chunks in the writing tasks after treatment. The descriptive statistics of the post-test of chunks produced by groups showed a significant difference between the CIG (with a mean value of 53.55, SD = 7.82) and the CG (with a mean value of 41.05, SD = 8.66). Meanwhile, the results of the independent t-test ($t_{(40)}$ = 4.89, P < .05) indicated a significant difference between the two groups' mean scores. The discussion points to the fact that in the first stages of learning, the CIG participants resisted chunk learning as they were used to understanding the meanings at word level; however, encouraging meaningful phrases (by holding messages for maintaining interactions) made them eager to learn the new meanings at

Table 14
Descriptive Statistics, General Writing Ability by Groups

	Groups	N	Mean	Std. Deviation	Std. Error Mean
General Writing	CIG	20	91.65	8.210	1.836
	CG	22	74.55	10.857	2.315

Table 15
Independent Samples Test, General Writing Ability by Groups

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal Variances Assumed	1.659	.205	5.713	40	.000	17.105	2.994	11.054	23.155
Equal Variances not Assumed			5.790	38.771	.000	17.105	2.954	11.128	23.081

chunk level. In other words, they realised that they are more intelligible to others and got motivated to continue with their chunk learning. The findings of this study concur with Hakuta's (1976) definition of lexical items as the functional meanings that learners are not yet able to construct them from their linguistic system. Hakuta stated that if the learners wait until they acquire the constructional rules for forming an utterance before using it, their motivation for language learning may be seriously affected. Similarly, Nattinger and DeCarrico (1992) stated that lexical chunks are considered as expressions that learners are yet unable to construct creatively because they are stored and retrieved as whole, thereby, resulting in frustration and at the same time promote language production. Moreover, the current research appears to validate Slobin's (1985) view in relation to young children's extraction of chunks in the environment that "these chunks will provide the material for the child to use in bootstrapping her way into the language system" (p. 1030), thereby improving their language production.

The second aim of this study was to investigate the significant difference between the CIG and CG in grammatical accuracy in the writing tasks. This variable was measured through independent samples t-test. The result showed a significant difference between CIG and CG in terms of the use of accurate grammatical chunks ($t_{(36)}$ = 5.86, P < .05). The CIG (with a mean of 49.15, SD = 3.10) performed significantly higher on grammatical accuracy than the CG (with a mean of 42, SD = 7.40). This

finding, considering the important role of chunks in grammar learning and accurate use of grammatical forms, lend support to Gerngross, Puchta and Thornbury's (2007) claim that specifies the initial stage of grammar learning as awareness-raising (chunk learning as the concern of this study) that, as the students, even adult learners, may not simply understand the rules, can aid learners to 'discover' grammar rules and remind why they refer to this first stage as 'discovery'. According to Gerngross et al. (2007), typical discovery processes include 'induction', where learners are given some language data (such as examples of the target grammar items in context) and are then encouraged to work out the rules themselves. It is important to point out that grammar rules were practised (at sentence-level before doing any tasks), manipulated and then contextualised in the form of dialogues and short paragraphs to both groups, but the result showed that chunk instructed group had used accurate grammatical sentences profoundly in their writing texts than the control group.

The third research question was to investigate the difference between the CIG and CG participants in their overall general writing. The overall general writing was moderate among the CG participants. However, the CIG (with the mean value of 91.65, SD = 8.21) outperformed the CG (with the mean of 74.55, SD = 10.85) which was a noticeable improvement. The result of the independent samples t-test ($t_{(40)}$ = 5.71, P < .05) revealed the significant improvement of the CIG participants on their general

writing ability. In other words, after the administration of treatment, applying a large amount of lexical chunks used by the CIG participants in writing texts, as a contribution to the utilisation of accurate grammatical sentences, was very helpful to consolidating those grammatically correct language units, thus, impacting their general writing ability. According to Jia-ying's (2006) study, there is a direct correlation between the learner's proficiency level and the amount of lexical chunks used. The comprehensive effects that lexical chunk instruction has on production (writing) skill and grammar learning in this study, and according to researchers, on pragmatics, fluency and memory enhancing, and more important the lexical chunks as tone units, mean that this way of teaching and learning is of overriding importance.

CONCLUSION

It can be concluded that in EFL contexts it would necessitate teachers to be informed of the basic premise of lexical chunks instruction to chunk the texts correctly in order to provide conditions for successful translation into mother tongue for the purpose of conveying messages. Hence, they can raise the students' awareness of 'chunks' and develop their ability to chunk the texts appropriately for the purpose of self-study. Therefore, in order to expedite the process of language learning, student teachers need to benefit from teacher training courses in order to be familiar with the potential lexical chunks instruction. Finally, the use of tasks, following sentence-level practices of

chunks during the treatment, as fundamental towards contextualised vocabulary learning showed that it could aid learners to benefit from context clues to retrieve and use the language chunks meaningfully in their output. In this way, the learners' intuition for using new patterns of language needed in particular contexts and their meta-linguistic awareness will be enhanced.

The available evidence seems to suggest that chunk instruction seems to be an effective strategy in the cases of very young learners or learners under the age of 13, but the school requirement was to have explicit meta linguistic explanation of grammar rules for both groups in this study. Therefore, the interpretation of the findings of this work should be done with certain reservations, and future studies are required to validate this particular claim without the use of metalinguistic explanation. Moreover, the limited number of participants in this study could affect the results. Third, the time lapse for teaching language chunks was restricted in our curriculum; and learners' prolonged exposure to more language chunks in the classroom is recommended. Finally, in regard to the validity and reliability issues and the time limit in classrooms, this study investigated the effect of chunks learning on writing ability. Further evidence may lie in the findings of this effect on speaking development of EFL learners, with a focus on the phonology of units (not individual words, according to Lewis, (1997)) as important in retrieving and use of language.

REFERENCES

Allen, D. (2009). Lexical bundles in learner writing: An analysis of formulaic language in the ALESS learner corpus. *Komaba Journal of English Education*, *1*, 105-127.

Araghi, S., Yousefi-oskuee, M. & salehpour, S. (2014). The Effect of pre-teaching extended prefabricated lexical bundles on the writing development of advanced EFL learners. *International Journal of Applied Linguistics and English Literature, 3*(2), 214-219.

Banikowski, A. K. (1999). *Strategies to enhance memory based on brain-research.* Retrieved October 24, 2013, from http://sc-boces.org/english/IMC/Focus/Memory_strategies2.pdf

Biber, D. (2006). *University language: A corpus-based study of spoken and written registers.* Amsterdam: John Benjamins.

Bogart, Z. (2011). *Don't let's try to break this down: Teasing apart lexical chunks (dissertation).* Retrieved October 24, 2013, from lct-master.org/getfile.php?id=39&n=1&dt=TH&ft=pdf&type...

Chaudron, C. & Richards, J.C. (1986). The effect of discourse markers on the comprehension of lectures. *Applied Linguistics*, *7*(2), 113-127.

Christophe, A., Peperkamp, S., Pallier, C., Block, E., & Mehler, J. (2004). Phonological phrase boundaries constrain lexical access, I. Adult data. *Journal of Memory and Language*, *51*(4), 523-547.

Chu, H., & Wang, R. (2011). Oral and written competence of Chinese foreign language learners in terms of lexical chunks. *International Journal of English Linguistics, 1*(1), 223-226.

Cohen, A. (1994). *Assessing language ability in the classroom*. Boston: Heinle and Heinle.

Coulmas, F. (1979). On the sociolinguistic relevance of routine formulae. *Journal of Pragmatics*, *3*(3-4), 239-266.

Durrant, P. (2008). *High frequency collocations and second language learning (dissertation).* Retrieved December 24, 2015, from http://core.ac.uk/download/files/81/98750.pdf

Eidian, F., Gorjian, B., & Aghvami, F. (2014). The effect of lexical collocation awareness on Iranian EFL learners' writing skill. *Academia Journal of Educational Research, 2*(1), 1-6.

Ellis, N. C. (2003). Constructions, chunking, and connectionism: The emergence of second language structure. In C. Doughty & M. Long (Eds.). *Handbook in SLA* (pp. 63–103). Oxford: Blackwell.

Ellis, N. C., Simpson-Vlach, R., & Maynard, C. (2008). Formulaic Language in native and second language speakers: psycholinguistics, corpus linguistics, and TESOL. *Tesol Quarterly, 42*(3), 375-396.

Ferguson, C. A. (1996). South Asia as a sociolinguistic area (1991). In C.A. Ferguson (Ed.), *Sociolinguistic perspectives: Papers on language in society* (pp. 1959-1994). New York: Oxford University Press.

Fowler, W. S., & Coe, N. (1976). *Nelson English language tests*. London: Butler and Tanner ltd.

Gass, S. M., & Mackey, A. (2002). Frequency effects and second language acquisition. A complex picture? *Studies in Second Language Acquisition*, *24*(2), 249-260. Doi: 10.1017. S0272263102002097 Retrieved September 15, 2014, from http://eprints.lancs.ac.uk/59843/1/S0272263102002097a.pdf

Gerngross, G., Puchta, H., & Thornbury, S (2007). *Teaching grammar creatively*. Cambridge: Cambridge University Press.

Goudarzi, Z., & Moini, M., R. (2012). The effect of input enhancement of collocations in reading on collocation learning and retention of EFL learners. *International Education Studies, 5*(3), 247-258.

Granger, S. (2011). From phraseology to pedagogy: Challenges and prospects. In T. Herbst, S. Faulhaber & P. Uhrig (Eds.), *The phraseological view of language. A tribute to John Sinclair* (pp. 123-146). Berlin/NY: Mouton de Gruyter.

Hakuta, K. (1974). Prefabricated patterns and the emergence of structure in second language acquisition1. *Language Learning*, *24*(2), 287–297.

Hakuta, K. (1976). A case study of a Japanese child learning English. *Language Learning*, *26*(2), 321-351.

Halliday, M. A. K. (1966). Lexis as linguistic level. *Journal of Linguistics*, *2*(1), 57-67.

Halliday, M. A. K. (1975). *Learning how to mean*. London: Edward Arnold.

Halliday, M. A. K. (1994). Theories of language. Halliday's theory -language as a social semiotic. Retrieved January 16, 2014, from http://golum.riv.csu.edu.au/~srelf/SOTE/EML504/Halliday.htm

Howarth, P. (1998). Phraseology and second language proficiency. *Applied Linguistics, 19*(1), 24-44. Retrieved from http://applij.oxfordjournals.org/content/19/1/24.abstract

Hyland, K. (2008). As can be seen: Lexical bundles and disciplinary variation. *English for Specific Purposes, 27, 4–21.*

Jacobs. H. L., Zingraf, S. A., Wormuth, D. R., Hartfield, V. F., & Hughey, J. B. (1981). *Testing ESL composition: a practical approach*. Rowley, Mass: Newbury House.

Jespersen, O. (1924). *The philosophy of grammar.* Abingdon, Oxon: Routledge.

Jia-ying, L. (2006). Lexical chunks and college English teaching. *Shandong Foreign Language Teaching Journal, 4*, 88-90.

Lennon, P. (1990). Investigating fluency in EFL: A quantitative approach. *Language Learning, 40*(3), 387–417.

Lewis, M. (1993). *The lexical approach: The state of ELT and the way forward*. Hove, England: Language Teaching Publications.

Lewis, M. (1997). *Implementing the lexical approach: Putting theory into practice*. Hove, UK: Language Teaching Publications.

Lewis, M. (2000). Teaching collocation: further developments in the lexical approach. *Teaching English as a Second or Foreign Language-Electronic Journal, 4*(4). Retrieved from http://tesl-ej.org/ej16/r12.html

Li, Q. (2014). An empirical study on the application of lexical chunk to college English writing. *Journal of Language Teaching and Research, 5*(3)*, 682-688. Doi: 10.4304/jltr.

McCarthy, M. (2004). Lessons from the analysis of chunks. Japan Association *for Language Teaching Publications*. Retrieved November 28, 2013 from http://jalt-publications.org/tlt/articles/688-lessons-analysis-chunks

Nattinger, J., & DeCarrico, J. (1992). *Lexical phrases and language teaching.* Oxford: Oxford University Press.

Pawley, A., & Syder, F. H. (1983). Two puzzles for linguistic theory: Native-like selection and native-like fluency. In J. C. Richards & R. W. Schmidt (Eds.), *Language and communication* (pp.191-226). New York: Longman.

Peters, A. M. (1983). *The units of language acquisition*. Cambridge: Cambridge University Press.

Ranjbar, N., Pazhakh, A., & Gorjian, B. (2012). The effect of lexical bundles on Iranian EFL learners' linguistic production fluency. *International Education Studies*, *5*(4), 243-251.

Sadat-kiaee, S., Heravi-moghaddam, N., & Moheb-hosseini, E. (2013). The effect of teaching collocations on enhancing Iranian EFL learners' reading comprehension. *Journal of Advances in English Language Teaching, 1*(1), 1-11.

Sadighi and Sahragard (2013). The effect of lexical collocational density on the Iranian EFL learners' reading comprehension. *The Journal of Teaching Language Skills*, *5*(1), 111-136.

Schmidt, R. (2010). Attention, awareness, and individual differences in language learning. In W. M. Chan, S. Chi, K. N. Cin, J. Istanto, M. Nagami, J. W. Sew, T. Suthiwan, & I. Walker (Eds.), *Proceedings of CLaSIC 2010, Singapore, December 2-4* (pp. 721-737). Singapore: National University of Singapore, Centre for Language Studies.

Schmitt, N. (2012). *Vocabulary in the new century*. Retrieved from http://www.norbertschmitt.co.uk/

Segalowitz, N. (2010). *Cognitive bases of second language fluency*. New York: Routledge.

Sinclair, J. (1991). *Corpus, concordance, collocation*. Oxford: Oxford University Press.

Sinclair, J., & Mauranen, A. (2006). *Linear unit grammar: Integrating speech and writing*. Amsterdam: John Benjamin Publishing.

Slobin, D. I. (1985). *The crosslinguistic study of language acquisition: Volume 2: Theoretical Issues*. New Jersey: Lawrence Erlbaum Associates, Incorporated.

Taguchi, N. (2007). Chunk learning and the development of spoken discourse in a Japanese as a foreign language classroom. *Language Teaching Research*, *11*(4), 433-457.

Wood, D. (2002). Formulaic language in acquisition and production: Implications for teaching. *Teaching English as a Second Language, CANADA Journal*, *20*(1), 1-15.

Wray, A., & Fitzpatrick, T. (2008). Why can't you just leave it alone? Deviations from memorized language as a gauge of native like competence. In F. Meunier & S. Granger (Eds.) Phraseology in Language Learning and Teaching (pp 123-48). Amsterdam: John Benjamins

Yorio, C. (1979). *On TESOL'79'. The learner in focus*. Retrieved from http://files.eric.ed.gov/fulltext/ED208683.pdf

Zarifi, A., & Mukundan, J. (2015). A corpus-based study of semantic treatment of phrasal verbs in Malaysian ESL secondary school textbooks. *Pertanika Journal of Social Sciences and Humanities, 23*(4), 793 – 808.

Zhao, Y., (2009). *An empirical study of L2 learners' use of lexical chunks and language production*. Retrieved March 2, 2013, from http://www.diva-portal.org/smash/get/diva2:229050/FULLTEXT01.pdf

Ziafar, M., & Maftoon, P. (2015). The influence of contrastive lexical approach on EFL learners' pragmatic performance: The case of Iranian EFL learners. *Indian Journal of Fundamental and Applied Life Sciences, 5*(1), 4378-4395.

APPENDIX A

Topics used in writing tasks:

Writing Task 1 (pre-test)

Write about the last time you were sick. Imagine it is now. Include these things:
Describe how you feel. Where are you? What can't you do because you're sick?
> **Source:** *Hey There! Book 2*, By Jose Luis Morales with Cathy Myers

Writing Task 2 (post-test)

Write about your ideal job when you grow up. Include these things:
What will the job be? What will you have to do? How much will you earn?
> **Source:** *Hey There! Book 2*, By Jose Luis Morales with Cathy Myers

APPENDIX B

Some lexical chunks introduced during the course:

Lexical Chunks	L1 Equivalent
Hey there!	آهای! حواست به من هست؟
As a living statue	مثل یک مجسمه متحرک
A street statue	یک مجسمه خیابونی
A good way to earn money	یک راه خوب برای پول در آوردن
Watch the world	دنیا رو دیدن/ بیرون را دیدن
At the same time	در عین حال
I have to be patient/strong/fit	باید صبور/قوی/متناسب باشم
Not easy to stay still	بی حرکت ایستادن آسان نیست
For long hours	برای ساعتهای طولانی
To stay in one place	در یک مکان قرار گرفتن
Standing on a platform	روی یک سکو ایستادن
Some people put money in the box	بعضی آدمها تو جعبه پول میاندازند
some don't	بعضی اینکارو نمی کنند
A few people/ try to annoy me	عده‌اي سعي می کنند منو اذیت کنند
Make me move	منو جابجا می کنند
Then at least I can move	حد اقل اونوقت می تونم حرکت کنم
Try hard not to react	سعی می کنم که عکس العمل نشان ندهم
To go on short bus trips	به سفرهای کوتاه با اتوبوس بریم
We're never bored	هیچوقت خسته نمی شیم
A working mom	یک مادر شاغل
Like a horse galloping	مثل اسبی که چهار نعل می تازد
That's incredible	باور کردنی نیست/ عجیبه
That's not all	همش این نیست/ همه مطلب این نیست
A sheet of metal/paper	یک ورق فلز/ یک ورق کاغذ

Sounds like a real storm	صداش مثل یک طوفان واقعی به نظرمیاد
He's carrying something	داره چیزی با خودش حمل می کنه
Say eight places in your school	هشتا مکان تو مدرستون نام ببر
He's taking the garbage out of the house	داره آشغال ها رو از خونه بیرون میبره
Anything to eat	چیزی برای خوردن/چیزی میل دارید بخورید؟/چیزی برای خوردن هست؟
Hanging out with family	با خانواده یکجا با هم جمع شدن/ وقت گذراندن
Are you a homebody?	آدم اهل خونه هستی؟/ می خوایی همش تو خونه باشی؟
The ball is kicked	توپ پرت شده
From one of the four corners of the field	از یکی از چهار گوشه زمین