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; 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 Mauaranen (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
The Impact of Message Units as ‘Chunks’ on EFL Production

(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>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Variance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PreChunk</td>
<td>42</td>
<td>27.88</td>
<td>67.083</td>
<td>0.83</td>
</tr>
<tr>
<td>PostChunk</td>
<td>42</td>
<td>37.29</td>
<td>67.331</td>
<td>0.88</td>
</tr>
<tr>
<td>PreGram</td>
<td>42</td>
<td>38.95</td>
<td>27.120</td>
<td>0.70</td>
</tr>
<tr>
<td>PostGram</td>
<td>42</td>
<td>45.40</td>
<td>28.832</td>
<td>0.87</td>
</tr>
</tbody>
</table>

Table 1
KR-21 Reliability Indices
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

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>PostChunk</td>
<td>.876</td>
<td></td>
</tr>
<tr>
<td>PreChunk</td>
<td>.871</td>
<td></td>
</tr>
<tr>
<td>PostGram</td>
<td>.836</td>
<td></td>
</tr>
<tr>
<td>PreGram</td>
<td>.731</td>
<td></td>
</tr>
<tr>
<td>Nelson</td>
<td></td>
<td>.971</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
<th>Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
<td>Cumulative %</td>
</tr>
<tr>
<td>1</td>
<td>2.783</td>
<td>55.657</td>
<td>55.657</td>
</tr>
<tr>
<td>2</td>
<td>1.032</td>
<td>20.645</td>
<td>76.302</td>
</tr>
<tr>
<td>3</td>
<td>.663</td>
<td>13.255</td>
<td>89.557</td>
</tr>
<tr>
<td>4</td>
<td>.350</td>
<td>7.002</td>
<td>96.559</td>
</tr>
<tr>
<td>5</td>
<td>.172</td>
<td>3.441</td>
<td>100.000</td>
</tr>
</tbody>
</table>
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)

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**Table 4**

*Testing Normality Assumption*

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

**Table 5**

*Descriptive Statistics, Nelson Test*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
<th>KR-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nelson</td>
<td>52</td>
<td>34.62</td>
<td>10.507</td>
<td>110.398</td>
<td>.92</td>
</tr>
</tbody>
</table>

**Table 6**

*Descriptive Statistics, Nelson Test by Groups*

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nelson</td>
<td>20</td>
<td>39.80</td>
<td>2.984</td>
<td>.667</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>38.95</td>
<td>3.671</td>
<td>.783</td>
</tr>
</tbody>
</table>
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*

<table>
<thead>
<tr>
<th></th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>T</td>
</tr>
<tr>
<td>Equal Variances Assumed</td>
<td>.627</td>
<td>.433</td>
<td>.814</td>
</tr>
<tr>
<td>Equal Variances not Assumed</td>
<td>.822</td>
<td>39.537</td>
<td>.416</td>
</tr>
</tbody>
</table>

**Table 8**  
*Descriptive Statistics, Pretest of Lexical Chunks by Groups*

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest of Chunks</td>
<td>CIG</td>
<td>20</td>
<td>35.55</td>
<td>11.269</td>
</tr>
<tr>
<td></td>
<td>CG</td>
<td>22</td>
<td>34.91</td>
<td>9.665</td>
</tr>
</tbody>
</table>
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 post-test of grammatical accuracy, rejecting the second null-hypothesis.

Table 9
**Descriptive Statistics, Pretest of Grammatical Accuracy by Groups**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest of</td>
<td>CIG</td>
<td>20</td>
<td>38.40</td>
<td>5.041</td>
</tr>
<tr>
<td>Grammatical</td>
<td></td>
<td></td>
<td></td>
<td>1.127</td>
</tr>
<tr>
<td>Accuracy</td>
<td>CG</td>
<td>22</td>
<td>39.45</td>
<td>5.422</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.156</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posttest of</td>
<td>CIG</td>
<td>20</td>
<td>53.55</td>
<td>7.824</td>
</tr>
<tr>
<td>Chunks</td>
<td></td>
<td></td>
<td></td>
<td>1.749</td>
</tr>
<tr>
<td></td>
<td>CG</td>
<td>22</td>
<td>41.05</td>
<td>8.666</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.848</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Sig.</td>
<td>T</td>
</tr>
<tr>
<td>---</td>
<td>------</td>
<td>---</td>
</tr>
<tr>
<td>Equal Variances Assumed</td>
<td>.201</td>
<td>.656</td>
</tr>
<tr>
<td>Equal Variances not Assumed</td>
<td>4.915</td>
<td>39.999</td>
</tr>
</tbody>
</table>
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*

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posttest of Grammatical Accuracy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIG</td>
<td>20</td>
<td>49.15</td>
<td>3.100</td>
<td>.693</td>
</tr>
<tr>
<td>CG</td>
<td>22</td>
<td>42.00</td>
<td>4.701</td>
<td>1.002</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Sig.</td>
<td>T</td>
<td>Df</td>
</tr>
<tr>
<td>Equal Variances Assumed</td>
<td>5.356</td>
<td>.026</td>
<td>5.756</td>
</tr>
<tr>
<td>Equal Variances not Assumed</td>
<td>5.868</td>
<td>36.631</td>
<td>.000</td>
</tr>
</tbody>
</table>

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>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Writing CIG</td>
<td>20</td>
<td>91.65</td>
<td>8.210</td>
<td>1.836</td>
</tr>
<tr>
<td>CG</td>
<td>22</td>
<td>74.55</td>
<td>10.857</td>
<td>2.315</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Equal Variances Assumed</td>
<td>1.659</td>
</tr>
<tr>
<td>Equal Variances not Assumed</td>
<td>5.790</td>
</tr>
</tbody>
</table>
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 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


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:

<table>
<thead>
<tr>
<th>Lexical Chunks</th>
<th>L1 Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hey there!</td>
<td>آهای! حواست به من هست؟</td>
</tr>
<tr>
<td>As a living statue</td>
<td>مثل یک مجسمه متحرک</td>
</tr>
<tr>
<td>A street statue</td>
<td>یک مجسمه خیابانی</td>
</tr>
<tr>
<td>A good way to earn money</td>
<td>یک راه خوب برای پول در اوردن</td>
</tr>
<tr>
<td>Watch the world</td>
<td>بازدید دنیا رو دیده/ بیرون را دیده</td>
</tr>
<tr>
<td>At the same time</td>
<td>در عین حال</td>
</tr>
<tr>
<td>I have to be patient/strong/fit</td>
<td>باید صبور/قوی/متناسب باشم</td>
</tr>
<tr>
<td>Not easy to stay still</td>
<td>بی حرکت ایستادن/ نیست</td>
</tr>
<tr>
<td>For long hours</td>
<td>برای ساعاتی طولانی</td>
</tr>
<tr>
<td>To stay in one place</td>
<td>در یک مکان قرار گرفتن</td>
</tr>
<tr>
<td>Standing on a platform</td>
<td>روی یک سکو ایستادن</td>
</tr>
<tr>
<td>Some people put money in the box</td>
<td>بعضی آدمها تو جعبه پول می‌دانند</td>
</tr>
<tr>
<td>some don’t</td>
<td>بعضی این کار نمی‌کنند</td>
</tr>
<tr>
<td>A few people/ try to annoy me</td>
<td>عده‌ای سعی می کنند منو اذیت کنند</td>
</tr>
<tr>
<td>Make me move</td>
<td>منو جابجا می کنند</td>
</tr>
<tr>
<td>Then at least I can move</td>
<td>حداقل این وقت می توانم حرکت کنم</td>
</tr>
<tr>
<td>Try hard not to react</td>
<td>سعی می کنم که عکس العمل نشان دهم</td>
</tr>
<tr>
<td>To go on short bus trips</td>
<td>به سفرهای کوتاه با اتوبوس بریم</td>
</tr>
<tr>
<td>We’re never bored</td>
<td>همیشه خسته نیست/ نمیشیرم</td>
</tr>
<tr>
<td>A working mom</td>
<td>یک مادر کار//</td>
</tr>
<tr>
<td>Like a horse galloping</td>
<td>مثل اسبی که چهار نعل می‌تازد</td>
</tr>
<tr>
<td>That’s incredible</td>
<td>باور کردی! یک/ عجبه</td>
</tr>
<tr>
<td>That’s not all</td>
<td>همک این نیست/ همه مطلب این نیست</td>
</tr>
<tr>
<td>A sheet of metal/paper</td>
<td>یک ورق فلز/ یک ورق کاغذ</td>
</tr>
<tr>
<td>English Expression</td>
<td>Persian Translation</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>Sounds like a real storm</td>
<td>صدای مثل یک طوفان واقعی به نظر می‌می‌دای</td>
</tr>
<tr>
<td>He's carrying something</td>
<td>داره چیزی با خودش حمل می‌کنه</td>
</tr>
<tr>
<td>Say eight places in your school</td>
<td>هشت ناحیه مدرسه‌تان نام ببر</td>
</tr>
<tr>
<td>He's taking the garbage out of the house</td>
<td>داره آشغال‌هایش رو از خونه بیرون می‌بره</td>
</tr>
<tr>
<td>Anything to eat</td>
<td>چیزی برای خوردن/چیزی می‌خواهم بخورم؟/چیزی برای خوردن هست؟</td>
</tr>
<tr>
<td>Hanging out with family</td>
<td>با خانواده یکجا با هم جمع شدن/ وقت گذراندن</td>
</tr>
<tr>
<td>Are you a homebody?</td>
<td>آدم اهل خونه یا نیستی؟/ می‌خواهم همش تو خونه باشم؟</td>
</tr>
<tr>
<td>The ball is kicked</td>
<td>توپ پیش شد</td>
</tr>
<tr>
<td>From one of the four corners of the field</td>
<td>از یکی از چهار گوشه زمین</td>
</tr>
</tbody>
</table>