The Teaching and Learning of Lexical Chunks: A Comparison of Observe Hypothesise Experiment and Presentation Practice Production

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Abstract
The focus of this study is the comparison of two teaching frameworks: Presentation Practice Production (PPP) and Observe Hypothesise Experiment (OHE) in the context of teaching twelve lexical chunks to two groups of twenty-one EAP students. An analysis of pre- and post-test scores demonstrated that both frameworks were successful in aiding students' productive and receptive knowledge of the target language. The question as to whether one framework was more effective than the other in the context studied was answered negatively, since no statistically significant difference between the treatment types was found. The results suggest that both input and output oriented activities can aid the acquisition of chunks to the same extent and thus, perhaps, the choice between these frameworks may be more dependent on teaching and learning styles than upon their impact on the acquisition of formulaic language.

Key words: Observe Hypothesise Experiment, Presentation Practice Production, formulaic language, lexical chunks, productive knowledge, receptive knowledge, input oriented activities, output oriented activities

1 Introduction
The existence and significance of prefabricated lexicogrammatical chunks in native speakers' language production is widely agreed on (e.g. Pawley & Syder 1983, Nattinger & DeCarrico 1992, Wray 2005). Corpus studies (e.g. Erman & Warren 2000, Foster 2001) have revealed that...
native speakers tend to resort to chunks which are 'idiomatic', i.e. automatically accepted as the 'preferred' linguistic choices in a given context and stored / extracted as wholes from our mental lexicon. Apart from the role formulaic sequences have in idiomatic language use, it has been recognised that they are central to fluency (Pawley & Syder 1983, Wood 2001, 2006, 2009), and have various pragmatic and socio-linguistic functions (Nattinger & DeCarrico 1992, Kasper & Rose 2001). Moreover, Dörnyei (1995) proposes that certain lexical chunks can help students to overcome communication breakdowns by assisting learners in employing communication strategies such as stalling, circumlocution, and appeals for help and approximation. Considering the various functions of lexical chunks and their prevalent nature in native speakers' discourse, it has been suggested that they would benefit L2 learners (Willis 1990, Nattinger & DeCarrico 1992, Lewis 1993, 1997, 2000). However, research into the teaching of formulaic sequences is limited, and the studies conducted to date have produced mixed results (Boers & Lindstromberg 2012). This study aims to contribute to the discussion by reporting on a comparison of two teaching frameworks: Presentation Practice Production (PPP) and the Observe Hypothesise Experiment (OHE) employed to teach twelve chunks to forty-two adult learners enrolled on an International Foundation Programme (IFP) at a British university. The following research questions were posed:

RQ 1a: Does explicit instruction (with the use of PPP or OHE) affect students’ productive knowledge of chosen chunks necessary for stalling and circumlocution?

RQ 1b: Are either of the treatments (PPP or OHE) more effective than the other in terms of aiding students’ productive knowledge of the target forms?

RQ 2a: Does explicit instruction (with the use of PPP or OHE) affect students’ receptive knowledge of...
chosen chunks necessary for stalling and circumlocution?

RQ 2b: Are either of the treatments (PPP or OHE) more effective than the other in terms of aiding students’ receptive knowledge of the target forms?

2 Literature Review

The notion that language production relies to a great extent on the retrieval of prefabricated chunks was first proposed in the early 1930s (Jackson 1932 and Firth 1935). These claims were later followed by Hymes (1962) and Fillmore (1979) who proposed terms such as collocations (Firth 1935), linguistic routines (Hymes 1962) or formulaic utterances when describing recurring linguistic patterns.

However, due to the lack of empirical evidence at the time, Chomsky’s (1966, 1975) theory of generative grammar started to shape the views on language production. Linguistic creativity, restricted only by the rules of syntax, was considered central to successful language use. Chomsky’s model was challenged by Hymes (1972) who argued that the notion of purely linguistic competence was too narrow to account for real-life communication, and proposed the concept of ‘communicative competence’ highlighting the need for not only grammatically correct but also pragmatically successful communication. Pawley and Syder (1983) developed this discussion by stating that although native speakers have the creative ability to produce an infinite number of utterances, they tend to resort to a repertoire of prefabricated "lexicalised sentence stems" which are ‘idiomatic’ i.e. automatically accepted as ‘native-like’ and not deviant’, by the other members of the speech community. The view that much language is formulaic was also supported by Nattinger (1980, 1986) and Nattinger & DeCarrico (1989), who coined the term ‘lexical phrases’ defined as multi-word lexical phenomena that exist.
somewhere between the traditional poles of lexicon and syntax and which are similar to lexicon in being treated as units, yet most of them consist of more than one word. (Nattinger and DeCarrico 1992:1)

Claims made by Hymes (1972), Pawley & Syder (1983) and Nattinger (1980, 1986) as well as Nattinger & DeCarrico (1989) were confirmed when corpora started to be more widely used as a research tool (Altenberg & Eeg-Olofsson 1990, Renouf & Sinclair 1991, Sinclair 1991, Kjellmer 1994, Altenberg 1998, Stubbs 2001). The empirical evidence emerging from text analysis demonstrated that words recur in clusters which are on a cline from almost random partnerships to fully fixed expressions and that lexis and grammar can be seen as two elements of the same continuum. The notion of lexico-grammar, first introduced by Halliday (1961) and Hasan (1987), was further developed by Sinclair (1991, 1996), who proposed that the correlation between syntax and lexis makes it impossible to analyse either of them in isolation, since different words appear to have their own grammar with distinctive collocational, colligational, semantic, pragmatic and generic associations (Aston, 2001:15). Moreover, Sinclair’s (1991, 1996) model of language further emphasised the formulaic nature of language production where, as Sinclair proposed, the majority of spoken and written texts are constructed and can be interpreted, using the idiom principle, and not the open-choice principle as Chomsky suggested. The idiom principle simply means that speakers and writers construct much language by using formulaic sequences, rather than creating language from the ‘open choice’ of syntax. This suggests that chunks such as *Will you marry me?* are not constructed in the speaker’s mind word by word but as one complete chunk.

The corpus-driven language description provided by Sinclair influenced ELT syllabuses whose focus started to shift from grammar-led instruction to a greater focus on lexis. The first attempt at incorporating lexis into the language classroom was Sinclair & Renouf’s (1988) lexical syllabus which was based on the findings from the COBUILD (Collins–Birmingham University International Language Database) project.
Sinclair & Renouf’s work was put into practice by Willis (1990) and took the form of three course books (COBUILD English Course) based around the 2,500 most frequent words and word patterns found in the COBUILD corpus. In terms of pedagogy, Willis proposed the use of authentic reading and audio materials and a task-based methodology, combined with an analysis of samples from the corpus. Nattinger & DeCarrico (1992), on the other hand, emphasised the pragmatic roles many chunks have in conversation and considered them pedagogically applicable, particularly at the early stages of language development where students are not yet able to use the L2 creatively. Nattinger & DeCarrico did not develop a separate procedure for the implementation of lexical chunks. Instead, they advocated incorporating lexical phrases into communicative activities which were already present in the classroom. Moreover, they suggested that teachers should design activities which would aid “the progression from routine to pattern to creative language use” (Nattinger & DeCarrico 1992:116).

Perhaps the most well-known attempt at incorporating lexical chunks into mainstream ELT was made by Lewis (1993, 1997, 2000) who introduced the *lexical approach*. Drawing on the work of Sinclair (1991), Lewis (1993: 34) claimed that language should be seen as ‘grammaticalised lexis’ and not ‘lexicalised grammar’, thus giving more importance to the behaviour of words and word patterns in language production and understanding. Alongside his theory of language, Lewis also offered a theory of learning. This theory was greatly influenced by Krashen & Terrel’s (1983) *natural approach* in the framework of which authentic spoken and written input constitute the basis for L2 acquisition. Thus, Lewis advocated providing learners with high volumes of comprehensible input and allowing students to observe, rather than produce, the target forms. Moreover, Lewis emphasised the need for input-centred consciousness-raising activities which allow students to ‘notice’ (Schmidt 1990) chunks and lead to converting input (which language learners encounter) into intake (i.e. language that is internalised). Lewis’
theories of language and learning were to be reflected in the *observe hypothesise experiment* (OHE) cycle which, according to him, constituted the most effective way of teaching lexical chunks. The framework, based around high volumes of input, reflection and noticing, was presented in opposition to *presentation practice production* (PPP) which Lewis (1997) saw as a rule-driven, teacher-fronted, deductive approach based on behaviourism. He claimed that PPP was ‘discredited’ as a form of pedagogy (Lewis 1993:190).

Although Lewis (1993, 1997) very strongly argued in favour of OHE, very little empirical evidence which supports these assertions exists. Lewis (2000) points to his colleagues’ reports which suggest that learners appeared to have benefited from consciousness-raising activities, but such reports only amount to anecdotal evidence, no matter how persuasively the arguments are framed. In terms of research evidence, the efficacy of such pedagogical interventions has not been clearly demonstrated. Moreover, in their review of intervention studies on formulaic sequences, Boers & Lindstromberg (2012) point out that no consensus has been reached in terms of the most effective pedagogy for teaching formulaic sequences. They emphasise the need for empirical studies stating that “the research conducted so far has raised almost as many questions as it originally sought to answer” (Boers & Lindstromberg, 2012: 101). Therefore, the rationale for this study is twofold. Firstly, we wished to use classroom research to evaluate Lewis’ claims on the greater effectiveness of OHE (rather than PPP) when teaching chunks. Secondly, as previously argued, there is a general need for experimental classroom research concerned with how to best facilitate the acquisition of chunks.

3 Methodology

3.1 Participants

The data in this study comes from an experimental classroom research investigation conducted at a British university. The participants were forty-two adult learners (25
female and 17 male) of mixed nationalities (30 Chinese, 11 Arab, 1 Japanese) enrolled on a three-month pre-sessional Academic English course. Students were of B2 level (upper intermediate) in accordance with the Common European Framework (CEFR) (Council of Europe 2001) and were preparing to enter undergraduate and postgraduate programmes at British universities.

3.2 Language Focus

Since it has been observed (Clennell 1999, Jarvis & Stakounis 2010, Halenko & Jones (2011) that EAP courses do not tend to focus on conversational and interpersonal English, many EAP students residing in English speaking countries are often unable to communicate in a pragmatically effective manner in and around the university setting. To address this issue, the chunks selected for this study were chosen to fulfil clear pragmatic functions. In this case, the focus was on time gaining and circumlocution devices, because we felt that instruction on chunks with these specified functions would aid the IFP students' ability to communicate in the L2 culture.

The formulaic sequences chosen for this study were divided into two 'sets': stalling devices and circumlocution devices, with the former encompassing nine multi-word chunks and the latter three.

<table>
<thead>
<tr>
<th>Stalling Devices</th>
<th>Circumlocution Devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>What I mean is</td>
<td>It's a bit like</td>
</tr>
<tr>
<td>As a matter of fact</td>
<td>It's (a) kind of/sort of</td>
</tr>
<tr>
<td>I know what you mean</td>
<td>The thing you use for + -ing</td>
</tr>
<tr>
<td>At the end of the day</td>
<td></td>
</tr>
<tr>
<td>I'm not entirely sure</td>
<td></td>
</tr>
<tr>
<td>Let's put it this way</td>
<td></td>
</tr>
<tr>
<td>To be honest with you</td>
<td></td>
</tr>
<tr>
<td>What I'm trying to say is</td>
<td></td>
</tr>
<tr>
<td>Let me think/see</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1. Chunks used in the study

It was felt that even though students were most probably at least receptively familiar with some of the chunks, a number greater than twelve would not be feasible considering the complexity of the target forms and the length of treatment (90 minutes).

In terms of the distribution of chunks and their roles, fewer circumlocution devices were selected, since we would argue that the chunks chosen are sufficient to allow students to describe unknown vocabulary and sustain conversation. A greater number of stalling devices was included for the following reasons. Firstly, although the chunks were presented to students as time-gaining devices, it needs to be acknowledged that their functions depend on the communicative situations they are used in (Prodromou 2008). Thus, the chunk as a matter of fact can be used to emphasise the truth of the speaker's assertion. The chunk I know what you mean can express agreement; at the end of the day can be a summariser and ‘let’s put it this way’ can mean ‘in other words’ when the speaker attempts to clarify something. However, despite their various pragmatic functions, it is argued that these chunks might not always be salient to L2 learners since they are not crucial for conveying meaning. Therefore, it was hoped that explicit instruction on these chunks would allow learners to notice them in language input and eventually develop a sense of their uses. Moreover, even though the assumption was that some level of receptive knowledge was present, Bardovi-Harlig (2009) suggests that, while the recognition of formulas is a necessary condition for their production, it is not a sufficient one. Bardovi-Harlig posits that students need to be able to interpret relevant contexts in which they can use pragmatic routines, and this is where highlighting such contexts in class may be useful for learners.

In terms of chunk selection, the following procedure was employed. First, Dörnyei and Thurrel's (1992: 45, 65) lists of stalling and circumlocution devices were consulted. The frequency of chunks was checked against the British National Corpus (BNC), using the
Compleat Lexical Tutor (2012) online corpus data tool. Some of the most frequent chunks were then selected following Schmitt’s (2010) assertion that teaching frequent vocabulary gives students more opportunities of recognising it in input and should eventually lead to acquisition. Two chunks what I’m trying to say is, and the thing you use for, which appeared in Dörnyei & Thurrel’s (1992) lists, were also added, despite not being significantly frequent in the BNC. Moreover, the chunks at the end of the day and I’m not entirely sure were included, even though they were not present in Dörnyei and Thurrel (1992). These two decisions were based on our intuition that they would be useful for learners in this context. In terms of form, the decision was made to only include chunks of three words or more following Lewis’ (2000) claim that teaching longer chunks is more beneficial for learners since

the larger the chunks are which learners originally acquire, the easier the task of reproducing natural language later. (Lewis’ 2000:13)

Thus, two-word chunks as well as items such as well, actually, um/err which appear in Dörnyei and Thurrel (1992) were discarded.

3.3 Study Design

Initially, 120 students, divided into four intact classes, were taught the target forms with the use of OHE or PPP. However, only data sets obtained from 42 learners were suitable for our analysis due to students’ absence and test incompletion. The study took the form of an experimental design. Students first completed a written productive and receptive pre-test, and then took part in a ninety-minute instruction.

It was essential to ensure that the lessons represented each framework in the best possible way. Therefore, the PPP treatment was designed following the guidance of Byrne (1986) and Gabrielatos (1994). With regards to the OHE lesson, Lewis’ (1993, 1997) suggestions were employed, bearing in mind that while the design of a PPP class is relatively clear-cut, there is no recipe for a ‘typical’ OHE lesson. Therefore, a
decision was made to adopt some of the tasks found in Lewis (1997: 150), which had been developed and reported by ELT teachers. The lesson involved activities such as vocabulary grouping, highlighting chosen lexical features and re-assembling cut-up phrases.

As can be seen from the lesson procedures (see Appendix), the PPP lesson needed to give students the opportunity to first focus on form and function of the language and then to practice it in controlled and freer activities. A controlled activity is one in which the students use the language in a restricted way (e.g. simply repeating after the teacher), and a freer activity is one in which the target language can be used alongside interlanguage that students can already produce (i.e. in a role-play). The OHE lesson, on the other hand, did not require students to produce the language at any point. The aim of the OHE class was to develop learners’ awareness of the selected chunks in terms of how they are formed, what they mean and what they sound like. Raising their awareness in this way was undertaken in the hope that they would notice the chunks when used in the input around them and eventually acquire them.

The first five stages of the classes did not differ, at all. In each group, students were first led into the topic; they then prepared for a listening-comprehension activity (three conversations likely to be held on the university campus) and completed the first part of the comprehension exercise (i.e. listening for gist and for specific information). However, when completing the second part of the comprehension exercise, the PPP students were asked to fill in gaps with chunks they heard, while the OHE group needed to re-assemble chunks which had been separated prior to the class. In the PPP group, students had to then decide what functions these chunks played in the conversation, as a part of focus on function (Gabrielatos 1994). This first stage has been described as the presentation stage in the case of PPP and the observe stage in the OHE framework. It could be argued that the two stages did not differ to a great extent, since both of them exemplified the language in context. However, in the
presentation stage, students in the PPP group also took part in choral and individual drills. In the OHE group, at no point were the target forms repeated by the students and the students' only task was to observe the language, in this case to listen to it and to read it.

In the practice stage in the PPP group, students took part in activities which elicited the language in focus. These involved a matching activity, in which the final choice needed to be said out loud, and a description game, in which students had to make use of circumlocution devices when describing vocabulary items. In the production stage, students had to write and act out a conversation which they would be likely to have on the university campus. Thus, at this point, students were expected to use the target chunks together with other language features. In the OHE group, the second phase involved creating hypotheses about the use of the language in focus. Drawing on an activity found in Lewis (1997: 66), students were set a task where they had to categorise the chunks according to their function and then discuss their usefulness and ease of use. Students also completed a group activity during which the previously selected chunks were presented in context, some of them being incorrect. The learners had to identify these chunks and correct them. According to Lewis (1997), the use of ‘negative evidence’ is beneficial to students as it involves them in further cognitive processes which aid acquisition. All the stages in the OHE class were based around guiding students to see how the chunks are used in discourse in order for them to formulate clear hypotheses about language. It was hoped that this heightened awareness would eventually lead to them experimenting with the language by using it outside of class.

The lesson in each group was followed by an immediate written productive and receptive post-test. A delayed test was distributed three weeks after the instruction. All tests measured students' receptive and productive ability of the target items, but the order was amended each time to prevent memorisation and the possible exchange of answers.
We recognise that a spoken test would be more desirable when assessing the production of features of spoken language. However, it was felt that using a less controlled assessment, such as a discourse completion test (Kasper & Dahl 1991) or a role-play, might not have elicited the target forms, since they can be easily avoided.

Thus, a written test was deemed most appropriate for the purpose of this study because it allowed us to measure students' knowledge of the chunks prior and after the treatment, which constituted the main focus of this study.

The test results were analysed using SPSS (Statistical Package for the Social Sciences), which allows an objective examination of gain scores through establishing their statistical significance. In order to discover whether the instruction had an immediate and/or sustained impact on students' performance, a paired-samples t-test was conducted. Next, an independent-samples t-test was used to compare the effectiveness of the frameworks against each other. As pointed out by Dörnyei (2007), it is essential to analyse gain scores for statistical significance since a subjective analysis of raw scores cannot indicate whether the obtained results are related to the treatment or whether they occurred by chance.

4 Results and Discussion

In this section, the data which were obtained in this study will be presented and analysed. The analysis and discussion of results will refer to the research questions posed.

RQ1a: Does explicit instruction (with the use of PPP or OHE) affect students’ productive knowledge of chosen chunks necessary for stalling and circumlocution?

The first set of data illustrates the impact the instruction had on students' productive knowledge in each group. In Table 2, the mean scores obtained in each test in the PPP and OHE group are presented:
<table>
<thead>
<tr>
<th>Type of test</th>
<th>Number of participants</th>
<th>Mean score PPP</th>
<th>Mean score OHE</th>
<th>Standard deviation PPP</th>
<th>Standard deviation OHE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>21</td>
<td>8.86</td>
<td>9.35</td>
<td>6.78</td>
<td>3</td>
</tr>
<tr>
<td>Post-test</td>
<td>21</td>
<td>20.43</td>
<td>21.4</td>
<td>5.8</td>
<td>5</td>
</tr>
<tr>
<td>Delayed test</td>
<td>21</td>
<td>13.38</td>
<td>17.1</td>
<td>7.28</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 2: Mean scores obtained on productive test in PPP and OHE group

From Table 2, it is noticeable that in both groups, there is a substantial difference between the pre-test mean score and the scores obtained in the post-test and the delayed test. However, since reviewing raw scores does not allow us to determine whether the achieved gains are significant and consistent enough to be assigned to the treatments, it was essential to review the statistical data obtained in the Paired Samples t-test. The results are presented in Table 3.

<table>
<thead>
<tr>
<th>Gain scores</th>
<th>Mean gain PPP</th>
<th>Sig. (2-tailed) p-value PPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test-Post-test</td>
<td>11.57143</td>
<td>.000</td>
</tr>
<tr>
<td>Pre-test-Delayed test</td>
<td>4.52381</td>
<td>.003</td>
</tr>
<tr>
<td>Post-test-Delayed test</td>
<td>-7.57143</td>
<td>.001</td>
</tr>
</tbody>
</table>

Table 3: Gain scores and their statistical significance in PPP and OHE group (productive test)

As seen from Table 3, in both groups, there is a statistically significant difference between the pre-test and post-test scores and, therefore, it is safe to assume that both treatments had an immediate effect on the students’ performance.

The pre-test-delayed test gains are also statistically significant, indicating that the effect of the treatment on the PPP and OHE students’
ability to use the chunks was sustained over time. However, it is also apparent that significant attrition occurred between the post- and delayed test in both groups. Schmitt (2000) points to attrition as an inevitable element in vocabulary learning and argues that the development of productive vocabulary knowledge is more prone to attrition.

To sum up, the analysis of the test scores within each group has demonstrated that the treatment had an effect on students' performance on both the post-test and the delayed test. Therefore, it was necessary to conduct an independent samples t-test to assess whether one framework was more effective than the other in aiding students' productive knowledge of the target chunks.

RQ1b: Is either of the treatments (PPP or OHE) more effective than the other in terms of aiding students' productive knowledge of the target forms?

At the beginning of the study, a hypothesis was posed according to which the PPP group would improve significantly more in terms of their productive knowledge as it is argued that productive learning facilitates productive knowledge (Griffin & Harley 1996; Waring 1997a). This hypothesis was rejected as far as this group was concerned, since the independent samples t-test demonstrated no significant differences between the groups as shown in Table 4.

<table>
<thead>
<tr>
<th>Gain type</th>
<th>Gain score PPP</th>
<th>Gain score OHE</th>
<th>Sig 2 tailed p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain post-test pre-test</td>
<td>11.57143</td>
<td>12.0500</td>
<td>.818</td>
</tr>
<tr>
<td>Gain delayed test-pre test</td>
<td>4.52381</td>
<td>7.7500</td>
<td>.086</td>
</tr>
<tr>
<td>Gain</td>
<td>-7.57143</td>
<td>-4.30000</td>
<td>.124</td>
</tr>
</tbody>
</table>
Table 4: *Statistical comparison of gain scores between groups (productive test)*

From the results in Table 4, it is evident that, at least in the context of this study, the frameworks proved to be equally effective. These data are particularly interesting in the light of Lewis’ assertions on how successful OHE is when compared to PPP. In our study, this appeared not to be the case, at least with regard to the productive knowledge of chunks. Let us now turn to the results concerning the students’ receptive knowledge of the target forms.

**RQ2a: Does explicit instruction (with the use of PPP or OHE) affect students’ receptive knowledge of chosen chunks necessary for stalling and circumlocution?**

In order to answer RQ2a, the same procedure of analysing the results was used for each of the groups. First, the raw scores were reviewed. Next, a paired samples t-test was conducted to establish statistical significance. Finally, an independent samples t-test was used to compare the effectiveness of the frameworks. In Table 5, the mean scores obtained on the receptive test in each group are shown.

<table>
<thead>
<tr>
<th>Type of test</th>
<th>Number of participants</th>
<th>Mean score PPP</th>
<th>Mean score OHE</th>
<th>Standard deviation PPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>21</td>
<td>8.9000</td>
<td>8.6500</td>
<td>1.71372</td>
</tr>
<tr>
<td>Post-test</td>
<td>21</td>
<td>11.2000</td>
<td>10.9000</td>
<td>.89443</td>
</tr>
<tr>
<td>Delayed test</td>
<td>21</td>
<td>10.3000</td>
<td>10.4000</td>
<td>1.55935</td>
</tr>
</tbody>
</table>

Table 5: *Mean scores obtained on receptive test in PPP and...*
It is noticeable that all students had receptive knowledge of more than half of the target chunks prior to the treatment. However, in both groups students’ knowledge increased considerably after the instruction. Even though the raw scores suggest that the instruction had both an immediate and sustained effect, it was necessary to discover whether the gain scores were statistically significant. In Table 6, these results are shown.

<table>
<thead>
<tr>
<th>Gain scores</th>
<th>Mean gain PPP</th>
<th>Sig. (2-tailed) p-value PPP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test-Post-test</td>
<td>2.30000</td>
<td>.000</td>
</tr>
<tr>
<td>Pre-test – Delayed test</td>
<td>1.40000</td>
<td>.001</td>
</tr>
<tr>
<td>Post-test-Delayed test</td>
<td>-.90000</td>
<td>.010</td>
</tr>
</tbody>
</table>

Table 6: Gain scores and their statistical significance in PPP and OHE group (receptive test)

As can be seen from Table 6, the p-value indicates that both treatments had a significant effect on the gain scores, both immediately after the instruction and after the three week period, even though there was again some attrition between the treatment and the delayed test. Therefore, even though the students in both groups were receptively familiar with some of the chunks prior to the treatment, our results demonstrate that both types of instruction aided the acquisition of more chunks in the long term. Since the aim of this investigation was the comparison of the two frameworks in question, it was necessary to conduct an independent samples t-test in order to answer RQ2b.

**RQ2b:** Is either of the treatments (PPP or OHE) more effective than the other in terms of aiding students’ receptive knowledge of the target forms?

Table 7 provides the independent samples t-test results which allow us to assess whether in fact,
one of the paradigms was more successful than the other one in this context.

<table>
<thead>
<tr>
<th>Gain type</th>
<th>Gain score PPP</th>
<th>Gain score OHE</th>
<th>Sig 2 tailed p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain post-test pre-test</td>
<td>2.3000</td>
<td>2.2500</td>
<td>.917</td>
</tr>
<tr>
<td>Gain delayed test-pre Test</td>
<td>1.4000</td>
<td>1.7500</td>
<td>.496</td>
</tr>
<tr>
<td>Gain delayed -post test</td>
<td>-.9000</td>
<td>-.5000</td>
<td>.402</td>
</tr>
</tbody>
</table>

Table 7: Statistical comparison of gain scores between groups (receptive test)

As is shown in Table 7, the p-values indicate that both frameworks proved to be equally effective in aiding receptive retention of the target forms, in this case disproving the hypothesis that OHE students would be more successful due to the type of instruction they received (Griffin & Harley 1996; Waring 1997a).

Overall, these results show that both treatments were effective in helping learners to acquire the target chunks but that neither of them was superior to the other in developing receptive or productive knowledge of the target items.

5 Conclusion

Having reviewed the productive and receptive test results, the following can be concluded. Both types of treatment had an immediate and sustained effect on students' productive and receptive knowledge, which suggests, as we would expect, that explicit teaching has an impact on students' performance. The question as to whether one framework was more effective than the other in the context studied was answered negatively, since no statistically significant difference between the treatment types was found with regards to their effect on
receptive or productive knowledge. While we would seek to limit the extent to which we can generalise the results because they are based on just one situated study, we feel they provide interesting insights into the use of input- and output-oriented activities in the classroom which can inform the teaching of lexical chunks.

First, in the light of this study it would appear that although Lewis presented OHE in opposition to PPP, these paradigms do not appear to produce different results under test conditions. Although this would need to be tested further and with larger sample sizes in order to confirm it, we might suggest that the superiority of OHE has been somewhat exaggerated and the criticisms that PPP has received (Lewis 1993, 1997, Skehan 1996, Dellar 2013) have not been entirely justified. While PPP has been linked to the behaviourist theory associated with Audiolingualism, and thus with mindless repetition and habit formation, it can also be argued that drills and other output activities can be a useful tool in ELT. This may be particularly true with lexical chunks, which have to be remembered as single items. Nation (1990: 44) claims that five to sixteen or more repetitions are needed for a word to be remembered, and drills and practice tasks may help with this repetition in class.

It may also be the case that the difference between these two frameworks is not as extreme as it is sometimes presented. We might argue, for example, that the *practice stage* in PPP can resemble to a great extent the *experiment stage* in OHE and that observing and noticing language can also occur in the *presentation stage* of the cycle. The view that PPP can involve students in cognitive processes is argued by Ranta & Lyster (2007: 149), who draw a comparison between PPP and Anderson’s (1982) three phase skill-building model where, at each stage, students are consciously involved in the learning process: from consciously striving to understand the form and meaning through applying the knowledge into practice to eventual automatic production. Therefore, while it is not being proposed here that the production stage in the lesson is the end point of acquisition, we would argue that actively producing language
can be a useful tool for learning. What perhaps is missing from some descriptions of PPP is the idea of encouraging observation and noticing of language, which we would hope to develop in all learners. Whether we call this stage of a lesson 'observe' or 'presentation', we would suggest it should include inductive contextualisation, observation and reflection in regard to the language area being taught.

Finally, prior to the study it was assumed that PPP would aid students’ productive knowledge more effectively and OHE would produce better results in facilitating receptive ability. However, this was not the case. Instead, our results have shown that both frameworks were equally beneficial in developing receptive and productive knowledge of the target items. This may mean that the choice a teacher makes in terms of using PPP or OHE may be more dependent upon teaching and learning preferences rather than upon any direct impact on acquisition of formulaic language. This is, of course, not something to be taken lightly: it is expected that some learners will prefer a more reflective and receptive type of approach as suggested by OHE while others may want the chance to produce more language, as suggested by PPP.

Appendix

Lesson procedures in PPP and OHE

<table>
<thead>
<tr>
<th>PPP</th>
<th>Observe</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Presentation</strong></td>
<td></td>
</tr>
<tr>
<td>1 Students work in pairs and choose the five most popular / useful places on campus. Students share their ideas and we put them on the board.</td>
<td>1 Students write their most popular places on the blackboard.</td>
</tr>
<tr>
<td>2 The teacher shows pictures of places that would hopefully have come up: the Information Centre, the library and the new gym.</td>
<td>2 The teacher shows the pictures.</td>
</tr>
<tr>
<td>3 Students need to think of and write up three topics of conversations (one for each place), and the teacher elicits ideas.</td>
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</tr>
<tr>
<td>4 Students complete a matching activity to pre-teach vocabulary.</td>
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</tr>
<tr>
<td>5 Students listen to the recording and match the</td>
<td>5 Students listen to the recording and match the</td>
</tr>
<tr>
<td>Practice</td>
<td>Hypothesis</td>
</tr>
<tr>
<td>----------</td>
<td>------------</td>
</tr>
<tr>
<td>1 Students play a game in which they need to describe as many items as possible using circumlocution, in three minutes.</td>
<td>1 Student...</td>
</tr>
<tr>
<td>2 Students play a game in which they need to match and say out loud stalling chunks. For example, one student puts down a “Let’s” card and the student who puts down a card with “put it this way” and says it out loud will get a point.</td>
<td>2 Students...</td>
</tr>
</tbody>
</table>

**Production**

<table>
<thead>
<tr>
<th>Practice</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Students need to choose another spot on campus and write a dialogue similar to those listened to and present it to the class (students will be able to choose from three topics or pick their own).</td>
<td>2 Students...</td>
</tr>
<tr>
<td>2 Students choose the best one.</td>
<td>3 Students...</td>
</tr>
</tbody>
</table>

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**References**


Boers, F. & Lindstromberg, S. (2012). Experimental and


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