Formulaic sequences (FS) are defined here as “combinations of words that fulfil specific functions and that are called up more or less automatically by native speakers” (Adel & Erman, 2012, p. 81). They are a prevalent feature of both written and spoken discourse. With different FS seen to be more commonly used within different discourse genres, appropriate use of a genre’s preferred FS is considered to signal proficiency. Conversely, inappropriate use may mark one as a novice (Li & Schmitt, 2009). FS use has been found to be especially prevalent within academic writing. As such, knowledge of and proficiency with those most commonly used in the genre would seem necessary if one is to gain in proficiency. However, comparisons of second language (L2) learners’ use of FS with native-like use have highlighted a number of issues. Key among these is that L2 learners tend to overuse particular items, and that use is often not genre-appropriate (Siepmann, 2008). L2 learners also use single words to express functions more commonly expressed using multi-word items (Peters & Pauwels, 2015).

Frequency has been cited as being the main determinant of L2 learners’ knowledge of FS (Simpson-Vlach & Ellis, 2010). Encouraging noticing and using tasks which require the use of target FS have also been proposed as being beneficial for acquisition (Cortes, 2004; Coxhead, 2008). Previous interventions aimed at enhancing L2 learners’ FS acquisition have sought to measure the effectiveness of explicit instruction in written academic FS (see, for example,
AlHassan & Wood, 2015; Jones & Haywood, 2004; Peters & Pauwels, 2015). However, while post-intervention data regarding target FS use within these studies was drawn from written paragraphs, production exercises (such as gap-fills and using a specified FS within a sentence) during the intervention were limited to controlled use. In contrast, this study aimed to examine the effectiveness of a less controlled technique for promoting the acquisition of FS: having learners edit target FS into their own paragraphs. The rationale behind this was that the less explicit prompting of the editing, where learners were free to edit any of the target FS into their writing, might encourage them to freely use more of the target FS when given no prompting.

The study was guided by the following research question:

What effect does an explicit focus on integrating target FS into paragraphs have on participants' subsequent use of these items in their own writing?

**Methods**

**Population**

Participants consisted of four classes of first-year undergraduates at a Japanese university taking a paragraph writing course. Two classes, totalling 55 learners, were designated as the Experimental Group. The other two classes, totalling 57 learners, comprised the Control Group. The level within each class varied but was approximately CEFR level B1, an estimation based on the university entrance exam students had recently passed.

**Selected FS**

A total of 15 FS were selected for the intervention (see Appendix), with each serving a useful function in the type of academic writing the participants were expected to produce. Criteria for selection were, firstly, that each target FS was present in either the Phrasal Expressions List (Martinez & Schmitt, 2012) or the Academic Formulas List (Simpson-Vlach & Ellis, 2010). Ten of the 15 selected were present in both. Secondly, following Cortes (2004), each FS had to have a frequency of at least 20 times per million words in the British Academic Written English corpus. Of those selected, 12 of 15 had a frequency rate of more than double this requirement.
Intervention

The intervention was divided into two parts. The first aimed at familiarising participants in both the Control and Experimental Groups with the target FS. The second, involving only the Experimental Group, aimed to improve facility with the FS. The following provides an outline of how the intervention was conducted.

Weeks 1-4: All participants were given worksheets with example paragraphs similar to those they would be required to produce for the midterm paper (see below). Typically, five target FS were presented in a single paragraph, with three paragraphs per worksheet, and each target item presented one time per worksheet. Target FS were gapped in the example paragraphs, requiring learners to select the correct FS from those listed above the paragraph to fill each gap. Participants were also required to match each target FS with its function, selecting from those listed below each paragraph, for example, matching ‘on the other hand’ with ‘the addition of contrasting information’.

Week 5: Participants submitted the midterm (MT) paper for the writing course, a 150-word listing order paragraph from which the pre-intervention data were drawn. This was written at home, with students given no prompting to use the target FS. In class, as part of a paragraph editing exercise, all participants were required to look for instances within an example paragraph where target items could be used. Subsequent to Week 5, the Control Group were given no further prompting regarding the use of target FS.

Weeks 6-7: Each week, the Experimental Group completed a worksheet on which target items were presented with the first letter of each word followed by dashes corresponding to the missing letters. Experimental Group participants were then required to look for instances where target items may be used in their homework paragraphs and edit them in accordingly. They were instructed to use a range of target FS within their paragraphs.

Week 8: The Final (F) paper (a 300-word reasons and examples paragraph) was written in class, with neither group of participants given prompting regarding the use of target FS.
Measurement and Results

Data was drawn from participants’ MT (150 words) and F (300 words) papers, with occurrences of target items in each paper identified using AntConc software (Anthony, 2016). Errors relating to function and usage were not identified at this stage. As distributions within each group were found to be not normal, non-parametric tests were used to compare the two groups’ MT papers. A Mann-Whitney test determined no significant difference between the two groups’ MT regarding target FS use ($U = 1310.5, p = .122$). Wilcoxon signed-rank tests were then used to compare the frequency of target item use between individuals’ MT and F within both the Experimental and Control groups. For comparison between the MT and F, the frequency of target FS per 200 words was calculated for each paper. The Wilcoxon signed-rank tests revealed that in the Experimental Group there was a significant difference in the frequency of use of target FS between the MT and F ($Z = -4.944, p = .001$), while in the Control Group, there was no significant difference ($Z = -1.778, p = .075$). Thus, the Experimental Group showed a significant increase in use of target FS, while there was no increase in use for the Control Group.

The data suggests then that the editing intervention was successful in increasing the Experimental Groups’ frequency of target item use. However, it does not reveal whether the FS were used appropriately. With a view to providing an insight into this, a preliminary analysis of nine F papers from the Experimental Group with a high target FS raw frequency count (target FS $\geq 7$) was conducted. It revealed that mistakes were generally minor, limited to grammar or spelling, with only two instances (from a total of 74) of a target item being used to signal an incorrect function. It also revealed that a variety of target items were used throughout, with the exception of one paper where the FS “a number of” was used four times. This aside, the analysis suggests that the intervention was successful in encouraging participants to broaden their use of genre-appropriate FS, rather than overusing particular items.
Discussion and Conclusion

The initial analysis described above reveals that, with only two additional weeks of editing exercises, participants in the Experimental Group showed a significant increase in their use of target FS. The Control Group, on the other hand, showed no significant difference between their MT and F. Although the exercises in Weeks 1 to 4 allowed participants to see target items in context, the gap-fill nature of the exercises necessarily entailed very controlled use. In contrast, using the items freely within the context of a paragraph required greater understanding of usage and arguably allowed for deeper processing.

Furthermore, the examination of F papers with target FS counts of ≥ 7 showed that, on the whole, usage was correct. Restricting practice exercises to more controlled use only allowed for very limited corrective feedback. Conversely, the freer use afforded by the editing exercises allowed for far greater insight into what problems learners encountered. This in turn enabled more focused feedback. Additionally, this examination revealed that a range of target FS were used within each. Thus, the oft-noted problem of learners overusing a limited number of items was not evidenced.

In conclusion, the literature suggests that use of FS within academic writing is valuable to L2 learners if they are to achieve more native-like proficiency within the genre. It seems necessary then to gradually build learners’ knowledge of and utility with the FS identified as common within academic writing. This study would argue that the above intervention appears to be one effective way of achieving this. The data suggests that familiarization exercises alone may not be adequate. Rather, it may be necessary to provide output exercises in which learners’ use of target language is relatively unrestricted. The editing exercises carried out in the second stage of this study appear to provide just such a context, with the data suggesting that they are indeed beneficial.

References


Author bio

Lewis Murray is an Assistant Professor in the Institute of Liberal Arts at Kanazawa University, where he teaches primarily EAP classes. He has an MSc in TESOL from the University of Edinburgh. His research interests lie primarily in the field of formulaic language within academic writing. lewismurray77@yahoo.co.uk

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Appendix

The 15 FS selected for use in the intervention, showing the frequency of each in BAWE, and the presence of each (marked X) within PHRASE and AFL

<table>
<thead>
<tr>
<th></th>
<th>BAWE</th>
<th>PHRASE</th>
<th>AFL</th>
</tr>
</thead>
<tbody>
<tr>
<td>On the other hand</td>
<td>840</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>In contrast (to)</td>
<td>496</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>In terms of</td>
<td>1,734</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>With respect to</td>
<td>320</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>To some extent</td>
<td>163</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>As well as</td>
<td>2,368</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>In other words</td>
<td>338</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>In order to</td>
<td>3,991</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Whether or not</td>
<td>251</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>A number of</td>
<td>1,158</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>As a result</td>
<td>1,278</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>In addition to</td>
<td>393</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>Can be seen</td>
<td>1,245</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>At the same time</td>
<td>507</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>In the same way</td>
<td>213</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>