The Study of Selected Vocabulary in Context - Using Technology to Motivate Learners

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Introduction
This paper describes and explains the work of the UGRU-UAEU Concordance Committee (University General Requirements Unit, UAE University) which has created an interactive website to encourage independent learning of high frequency vocabulary in context. The website is a collection of easily accessible teacher-manipulated data-driven learning activities based on the UGRU Target Language Corpus and is a growing resource for the intermediate learner of English.

The UGRU Target Language Corpus is composed of electronic versions of current Maths, ICT and English texts used by UGRU students in their different courses during their first year at university. The corpus is accessed by teachers involved in the project (as materials writers) using a computer programme called a concordancer, in this case Concordance v3.2 (Watt, 2004) This is text analysis software which, among other things, produces Key Word In Context (KWIC) output. The materials writers then select up to 15 representative examples of the target word in context and design activities to help students discover the meaning, understand the use of the word and notice the patterns that surround it. The words used come from the institution’s Vocabulary To Learn (VTL) lists that are compiled according to a word’s frequency, range and saliency both in the UGRU Target Language Corpus and in the English language as a whole. This is done using Range software (Nation and Heatley, 1996).

The need to notice ‘grammaticalised lexis’
Secondary school graduates moving into higher education in the UAE generally need to augment both their lexical and grammatical bases in order to cope with their faculty courses. The UGRU Concordance website exists to accelerate lexical growth while promoting the noticing of ‘word grammar’ as an integral part of vocabulary study. The rationale is based on the premise that students learn to use words best by encountering multiple examples of a word used in novel contexts and being guided to notice how that word is used.

On the purely lexical level, Cobb & Horst (2001) write:

For the task of academic reading, the main knowledge type of interest is lexical. Word knowledge is the key ingredient in successful reading in both the L1 (Freebody and Anderson, 1981) and L2 (Cooper, 1984) contributing more to L2 academic reading success than other kinds of linguistic knowledge including syntax (Saville-Troike, 1984).

It is not only in reading that vocabulary is key. As Wilkins stated as far back as 1972, “Without grammar very little can be conveyed; without vocabulary nothing can be conveyed.”

Lexical knowledge is important to a language, but lexical items also have grammar. As Lewis (1993) stated, ‘Language consists of grammaticalised lexis, not lexicalised
grammars.’ KWIC output helps to reveal not only the collocations (words that co-occur regularly), but also the colligations (grammatical patterns that co-occur regularly) of a lexical item. As Lewis recommended (TESOL Arabia Conference, 2003), we should teach words with the useful grammar included, not take things apart, presenting words out of their grammatical context.

The UGRU Concordance website views teaching as directing attention so that students notice something that would otherwise have been missed. Much research has been published on how many times a learner must encounter a word before it becomes ‘known’ (Horst, Cobb & Meara, 1998; Kachroo, 1962; Saragi, Nation & Meister, 1978). In a first year programme, there is too little time to rely on these encounters taking place in a random way. Neither can students be relied upon to notice the words they encounter. KWIC output is efficient in that it presents multiple examples of a word at one time and effective in that drawing multiple examples of a word together in one place highlights certain patterns. However, simply encountering a word does not mean that learning will take place. As Laufer (2003) concludes,

> In instructed foreign language contexts, reading alone is unlikely to be the best source of vocabulary acquisition. Word focused activities, whether they are combined with reading or not, play a crucial role in building the learner’s lexical knowledge.

Increasing the number of encounters with a word and focusing the learner’s attention on the target word is generally expected to improve spelling, collocation and comprehension, leading to meaningful practice. Spelling is expected to improve as multiple examples of the target word are seen, one below the other, and are often emboldened in concordances. Seeing the word in context reduces the possibility of it being thought of in isolation from others, affording an increased chance then of the word being learnt as a phrase or lexical chunk. Why learn the word ‘instance’ from a list when to learn ‘for instance’ and ‘in this instance’ may enable the learner to progress more fluently?

It is hoped that the UGRU Concordance website will be both efficient and effective as learners are presented with multiple useful examples from their reading at one sitting, with word focused activities that guide them to notice the grammar attached to each word.

**The words selected for study**

If concordance KWIC output is to be used as a means of specifically focusing first year university students’ attention on particular lexis, how are words identified as being especially useful to highlight? According to Nation (2001), ‘high frequency words are so important that anything that teachers and learners can do to make sure they are learned is worth doing.’ He states that ‘counting the 2,000 most frequent words of English as high frequency words is still the best decision for learners going on to academic study.’ (Nation and Hwang, 1995).

This is because these words, as represented by West’s (1953) *A General Service List of English Words* (GSL), cover 78.1% of academic text. Nation (1990) argues that instead of studying the third thousand words, which would only add 4.3% coverage, learners should direct their attention to Coxhead’s (2000) Academic Word List.
(AWL) which affords 10% coverage for the investment of learning only 570 headwords. With a vocabulary of 2,000 words, one word in every five will be unknown. If the AWL is added, then one in 10 will be unknown. This brings learners very close to the threshold of 95% coverage that is required for transfer of L1 reading skills to the L2 text, such as guessing meaning from context (Hirsh and Nation, 1992). The remaining 5% of the words would be content words that would be the focus of instruction in that discipline.

It was with this argument in mind that specific words were selected for inclusion in the UGRU Concordance project. Having used Range to identify high frequency words for each course for a VTL list, the first words on the site were those from the VTL list of UGRU’s final level English course. Then came words that were on the AWL and appeared in texts from all subject areas in UGRU (Maths, ICT and English). At the time of writing, with the first 200 words on the site, 69% of those words come from the Academic Word List and 29% from the 2,000 most frequent words as represented on the GSL. Currently words on the VTL list of UGRU’s second level English course are being added. This will increase the percentage of words from the 2,000 most frequent words represented on the site.

**Accommodating the intermediate learner**

For teachers, researchers, the educated enthusiast and the advanced student, computer concordance programs are outstanding tools. As outlined previously, the benefits of KWIC output include:

1. multiple examples of the target word are presented – this ensures that a word is encountered many times in novel contexts;
2. multiple contexts can be viewed at the same time allowing for comparison;
3. patterns in the structure can be easily identified.

KWIC concordance lines may be obtained a) on the world-wide web (where the corpora are already pre-determined by the website creator, or b) with a concordance software program and a selected corpus. While these choices may bring rewarding results to the advanced learner, there are problems with both of these choices for the intermediate learner.

Some examples of corpora used on the web are the Bank of English Corpus, the British National Corpus and the Michigan Corpus of Academic Spoken English. An Internet search will show that these are only a few of many. The difficulty for the intermediate learner is that these corpora require the learner to have a native speaker command of English as the concordances made draw from the English language in its entirety. The intermediate student would clearly struggle to be successful and so a different approach is required. To use a corpus which is geared to the needs of the intermediate student is more logical.

The drawbacks with computer concordances for the intermediate learner are that:

1. the corpus used may present lexically rich examples which are beyond a learner’s understanding;
2. a screen filled with dense text is often difficult and unattractive to read;
3. reading the examples does not ensure that understanding has taken place;
4. training on concordance software use is required;
5. guidance on which words to study is needed.
The UGRU Concordance website has addressed the drawbacks listed above by:

1. using a corpus especially created from the English, Maths and IT texts that students meet in the course of their studies in UGRU, since, as Willis (1998) points out, texts students are familiar with allow cognitive effort to be focused on data driven learning;

2. presenting a clear index of the high frequency words that the intermediate learner needs – words on the institution’s Vocabulary To Learn lists which are compiled with reference to the first 2000 words of English and the Academic Word List;

3. tidying up the raw data by having teachers (as materials writers) select specific KWIC concordance lines for viewing, taking into account the frequency of collocation and patterns in structure;

4. presenting up to 15 examples in a clear, attractive table with the target word in bold and red for better noticing and with extraneous text deleted for clarity.

Other steps taken in the UGRU Concordance that make it more accessible for the intermediate learner include:

1. setting tasks which require noticing and both predictive and productive skills;
2. fostering active engagement in studying through interactive pages which encourage the students to focus well.

It is not expected that students or teachers will wish to find the source of any example; nevertheless, text references are provided in each concordance table thus increasing face validity by concretely connecting the examples to their textbook sources. Students sometimes feel that the only reason to learn vocabulary is to pass an English test, but when they encounter the words repeatedly in Maths and ICT courses as well, they start to realise their value in the broader sense.

Using the website – http://www.ugru.uaeu.ac.ae/concordance/
The user chooses a word to study from drop-down menus keyed by a clear alphabetical index.
Each ‘word’ has a webpage with the same format: a table of concordance examples for visual recognition of a word and its context, as well as interactive components in which the reader can check his or her understanding online and receive immediate feedback.

The three interactive components per word page include the following tasks.

**Task 1:** Predictive questions with multiple choice answers to encourage the reader to activate current knowledge about a word and make further predictions about it (Figure 1). The table in the top section of Figure 1 also shows how the KWIC output is presented to the learner on the screen above every task.

**Figure 1: Multiple choice questions**

<table>
<thead>
<tr>
<th>Task</th>
<th>Question</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
<th>Option 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How does mean affect a person?</td>
<td>mean</td>
<td>affect</td>
<td>affect</td>
<td>affect</td>
</tr>
<tr>
<td>2</td>
<td>How did your activities better your sleep?</td>
<td>affect</td>
<td>affect</td>
<td>affect</td>
<td>affect</td>
</tr>
<tr>
<td>3</td>
<td>My company problems affect me.</td>
<td>affect</td>
<td>me</td>
<td>affect</td>
<td>affect</td>
</tr>
<tr>
<td>4</td>
<td>However, different factors affect whether people worry about the risk.</td>
<td>affect</td>
<td>risk</td>
<td>affect</td>
<td>affect</td>
</tr>
<tr>
<td>5</td>
<td>A single extremely large value can affect the median more than the mean.</td>
<td>median</td>
<td>mean</td>
<td>affect</td>
<td>affect</td>
</tr>
<tr>
<td>6</td>
<td>and to forecast how changes in prices will affect profits.</td>
<td>prices</td>
<td>change</td>
<td>affect</td>
<td>affect</td>
</tr>
<tr>
<td>7</td>
<td>The process of will affect the way your documents look.</td>
<td>process</td>
<td>affect</td>
<td>affect</td>
<td>affect</td>
</tr>
<tr>
<td>8</td>
<td>No terms or conditions will affect your rights as defined under UK law.</td>
<td>terms</td>
<td>conditions</td>
<td>affect</td>
<td>affect</td>
</tr>
<tr>
<td>9</td>
<td>A proposed energy tax would affect the cost of driving a vehicle.</td>
<td>proposal</td>
<td>energy</td>
<td>affect</td>
<td>affect</td>
</tr>
<tr>
<td>10</td>
<td>the conditions that affect a situation.</td>
<td>affect</td>
<td>situation</td>
<td>affect</td>
<td>affect</td>
</tr>
</tbody>
</table>

Read the concordance examples above and then answer the questions below:

1. What part of speech is **affect**?

   - mean
   - affect
   - verb
   - adjective

   That’s it! By the way, **affect** is a transitive verb, so it needs an object.
Task 2: Questions giving ‘see answer’ feedback which asks about the meaning of the word (Figure 2).

**Figure 2: Word definition questions**

1. Can too much sun affect you?
   - Yes. Too much sun can affect your skin. It can make your skin burn.

Task 3: Questions using jumbled words in a sentence – these have text entry answers so the reader has to re-order the words and type the sentence with a high level of accuracy to be correct (Figure 3).

**Figure 3: Word ordering**

1. health Smoking affect the can.
   - Answer: Smoking can affect the health.
   - Great!

Task 4: A final non-interactive task asks the reader to write some examples in a notebook in his or her own words, using the target word in context (Figure 4).

**Figure 4: Connecting to the vocabulary notebook**

In your notebook, practise writing affect by answering the following questions. Use complete sentences.

a) What kind of things affect you?
b) Did a person or a particular situation affect you in the last few days?
c) What kind of things never affect you?

Finally, check your spelling of affect.
Use of the technology is instructional and effective in a number of ways. Without interactivity, the web pages may as well simply be a book. However, a book that replicates a small dictionary with a page per word would be huge, heavy, paper-consuming and expensive to reproduce. As an online resource, the website is efficient and accessible from anywhere.

By asking questions of the reader, which are then answered, each webpage is self-checking and thus is a self-access site where a student can learn independently. By using the interactive webpages, the learner activates existing knowledge about a word in context, checks understanding as part of the activity and uses the word in context in controlled and then free writing.

**Evaluation**

Four classes of students were introduced to the website and were given free choice to work on any two words using a worksheet provided after studying the word online. To complete the worksheet, they needed to: 1) state the selected word and its part of speech; 2) copy some examples of their word in context from the computer screen; 3) check the meaning from the dictionary box given and write this down; and 4) write three sentences using their word in context in their own words.

The worksheet ended with the survey question, “How useful has this webpage been to you?” The students responded on a scale of 1 – 5, where 1 represented ‘not useful’ and 5 represented ‘very useful’. The students were asked to circle the number of their choice and then add any extra comments if desired. Out of 147 worksheets, 29 survey questions were not answered. The results of the remaining 118 responses are shown in Table1.

**Table 1: Usefulness Survey**

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of students</th>
<th>Percentage of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Not useful</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>1.8%</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>16.9%</td>
</tr>
<tr>
<td>4</td>
<td>44</td>
<td>37.3%</td>
</tr>
<tr>
<td>5: Very useful</td>
<td>54</td>
<td>44%</td>
</tr>
</tbody>
</table>

It was a very small survey but it was reassuring to discover that, of those who answered the survey question, the majority of students (81.3%) found the pages either useful or very useful. Some students made comments, most re-affirming that they found the pages useful and a few responded that they would use this website in future.

Examination of the completed worksheets suggested that students had learned a great deal from the website although research has yet to be carried out to verify this. As expected there were errors in the free writing, some anticipated and others unforeseen. Among them, ‘really’ was confused with ‘rely’ and ‘very’ was confused with ‘vary’. The benefit of creating online materials, however, is that they can be easily modified so that learners’ unexpected mistakes can be prevented by amending the explanations given.

Whilst the website has been created to be used independently (i.e. without reference
to books or use of a worksheet), it has been found that using an accompanying worksheet in class can be highly beneficial to students as their noticing and writing errors can be instantly recognised by the teacher and followed by explanations.

**Conclusions**

Feedback from students and teachers has been very positive. Teachers are starting to introduce the site to students and the students are realising the value of concordances and how they can help them make progress in English. Moreover, in the UAE, the CEPA (the Common Educational Proficiency Assessment) is growing in importance so the site may be used as a resource for teachers and students in preparing for the vocabulary section of this high-stakes UAE-wide exam.

We believe an online, interactive resource of frequently occurring lexis, tailor-made to assist the intermediate learner in an academic context is useful for students in UGRU, as well as for intermediate students everywhere.

While the corpus used involves the texts that UGRU students use, the results (i.e. the pre-selected words and the resulting KWIC concordances) are likely to be those typically needed by intermediate students in an academic context globally. In fact, anyone who is learning English can benefit from noticing the patterns in language and enjoy answering the questions. For the future, the word choice will continue to be expanded and sound may be added so that learners can hear how a word is pronounced by itself as well as when used in a sentence. Further research will be useful in determining the effect of the materials on learning.

Cobb & Horst (2001), when in neighbouring Oman, wrote about ‘carrying the learner across the lexical threshold’ to enable the learner to read academic texts in his own discipline. In a final paragraph, they state that their long term objective was ‘to produce a set of wordlists and corpora, possibly with Internet delivery, that will allow a student anywhere to locate and cross the lexical threshold into L2 reading in a profession or subject with the smallest delay.’ The result is Tom Cobb’s extremely useful Compleat Lexical Tutor (http://www.lextutor.ca/).

Here in the United Arab Emirates, we (a team of university teachers) have created the UGRU Concordance website. We have used our own corpus from which our students’ wordlists derive. We have constructed a website reflecting our approach so that our students can benefit no matter where they choose to study. Moreover, we have started to create a tailor-made tool that should enable our students to reach that same lexical threshold more quickly.
References


