Chapter 47
Theory and Practice in Computer-Assisted Vocabulary Learning:
A Case Study

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ABSTRACT

This chapter presents an account of the ongoing development of a vocabulary learning resource, VocPAL (Vocabulary: Progressive Autonomous Learning), for French learners of English in a university context. The chapter describes the background to the resource, its theoretical underpinnings, and its presentation features. These include pictures, sound, an association test, and context sentences forming a story. A questionnaire was administered to college students (N = 115) to assess reactions to VocPAL in an online learning environment. Further insights were gained from interviews with users of the resource. Both questionnaire and interview data suggest that, while the resource is judged favourably overall, improvements can be made to make the story more appealing and to add more interactivity. Results are discussed in terms of future development options, limitations to the study, and some broader issues regarding computer-assisted vocabulary learning.

INTRODUCTION

For any second language (L2) learner, vocabulary represents a huge challenge. Depending on the learner's goal, the number of words to be learnt may vary, but in the case of vast numbers of students around the world who are required to learn English in order to read texts related to their field of study, the figure will run to several thousand. Estimates differ as to the number of words one needs to know in order to be comfortable reading texts, but it has been suggested that a minimum of 6,000 word families is necessary (Nation, 2006).

Many students, in France and elsewhere, do not reach this level of vocabulary knowledge (Arnaud, Béjoint & Thoiron, 1985; Schmitt, 2008). One reason for this is that when reading a text, learners may pay only minimal attention to unfamiliar words (Fraser, 1999). Incidental learning of vocabulary through extensive reading may thus be effective only if learners are exposed to large quantities of text. While incidental vocabulary learning may occur in the first language (L1, Nagy, Herman & Anderson, 1985), it is rarely the case in the L2 (Laufer, 2005). Even when texts are simplified to reduce the number of unfamiliar words, as is the case with graded readers, words are not encountered often enough to ensure effective vocabulary acquisition (Cobb, 2007). It has, therefore, been argued that some form of decontextualised encounter that encourages more elaborative processing is necessary (Laufer & Rozovski-Roitblat, 2011).

The initial aim of such processing is twofold: the first is to set up a mental representation of the word form and then to link the form to the word's meaning. However, as soon as the number of words increases, this double requirement becomes in itself a challenge. Thus, it may be helpful to break down the process, focusing first on form before engaging in semantic elaboration (Barcroft, 2002). Subsequent encounters with the word then help to consolidate the form in memory and enrich the representation of its syntactic and semantic properties.

Because there is not enough classroom time for teachers to present the large number of words to be learnt, it has been suggested that beyond the first two or three thousand most frequent words, learners need to adopt an active commitment to the task (Schmitt, 2008). With the development of computer assisted vocabulary learning (CAVL), learners are given the opportunity to handle the task independently outside of the classroom (Arispe, 2011; Cobb & Horst, 2011; Groot, 2000; Ma & Kelly, 2006; Stockwell, 2007, 2010; Tozcu & Coady, 2004). This, of course, is not exclusive to CAVL – motivated learners make use of many resources to improve their L2 proficiency. However, a well-designed CAVL application can go a long way towards meeting the five criteria of stimulus appraisal that, according to Schumann (1998) are likely to enhance motivation: novelty, pleasantness, coping potential (i.e. the learner's appraisal of how well he or she can cope with the stimulus demands), goal significance, and compatibility with self and social image.

To meet all these criteria fully nonetheless remains a challenge. While pleasantness can be enhanced by the use of pictures or video, the repetitiveness of vocabulary learning means that novelty can quickly wear off. In order to comply with the coping potential criterion, a resource needs to provide a manageable workload and also be user-friendly. Goal significance implies that the learner not only sees vocabulary learning as important but also perceives the CAVL resource as an effective means to reach that goal. One attraction of CAVL applications is that, by means of spaced repetition, they can offer personalised reviewing of individual items based on the learner's previous responses within an expanded rehearsal framework, a feature likely to enhance goal significance. However, as Godwin-Jones (2010) points out, such programmes will work best with already motivated learners who work on a regular basis. Indeed, intrinsic motivation and learner autonomy are connected (Ushioda, 1996), but many learners are not sufficiently motivated to develop their capacity for autonomy. In sum, while CAVL certainly opens up possibilities, it by no means guarantees that the vocabulary learning challenge will be met. Whilst making no claims to provide such a guarantee, Vocabulary: Progressive Autonomous Learning (VocPAL), a CALL project reported and examined in this chapter, is an attempt to combine certain features in such a way as to ease the burden of vocabulary learning for students.

VocPAL can be considered as a dedicated CAVL programme as defined by Ma (2013) in that it adopts a comprehensive and systematic approach. That is, it seeks first, to ensure that words are presented both in context and decontextualized and second, to provide a sufficient number of encounters for the

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