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COLLABORATIVE AND INDIVIDUAL VOCABULARY BUILDING USING ICT

Abstract. Vocabulary knowledge affects any learner's general language proficiency and the lack of vocabulary is often seen as an obstacle in a student's progress. This statement becomes even truer when considering languages for specific purposes as the knowledge of technical vocabulary is closely connected to mastering professional skills. The research on vocabulary learning distinguishes two types of learning, incidental and intentional, which should complement each other. One of the most efficient intentional strategies proved to be the use of flashcards. Modern technologies have contributed to further development of this rather popular method by offering new ways of vocabulary consolidation as well as novel forms of interaction.

The main objective of the paper is to introduce a teaching methodology aimed at the intentional building of students' vocabulary, however, at the same time making students being aware of a broader context in which a word or a collocation is used. The presented methodology involves student generated and recycled content as well as the use of electronic tools, namely Google docs and Quizlet.

In the course of three subsequent spring semesters, students first created a Google Docs collaborative learning log with lists of vocabulary, the following year's students uploaded the lists of definitions and translations into Quizlet sets and in the final year the words in Quizlet flashcards were supplemented with example sentences. Students' performance showed that both Google Docs and Quizlet are efficient tools not only for vocabulary learning, but also for language teaching. The proposed methodology was used in legal English classes, however, it can be implemented in any language course.

Keywords: ESP, vocabulary building, legal English, Google Docs, Quizlet.

Introduction

Vocabulary has been considered by many researchers, teachers and students an essential element in learning a language (cf. Crandell, 2017) and since the 1990s there has been extensive research in the area of vocabulary building and retaining. Vocabulary learning can be seen as a process of sub-related tasks which will lead to "knowing" and "using" a word (Gu, 2003).

González-Fernández & Schmitt (2017) summarize a successful approach to teaching vocabulary in three steps: first, learners need to know which words to study, then they should focus not only on size but also depth (e.g. collocations, word forms, grammar) and finally, teacher needs to provide a variety of learning opportunities. Nation (2003) suggests that vocabulary learning should be a good balance of incidental and intentional/deliberate learning opportunities.

Incidental learning takes place within listening, speaking, reading and writing activities, without being the main objective of the activity, while intentional study involves conscious learning of vocabulary which often involves various strategies. Nation (2001b) admits that deliberate learning is decontextualized and as such largely criticized, however the criticism is contradicted by research which shows that intentional learning is much more efficient than incidental learning and thus results in greater and faster vocabulary gains. Schmitt (2008) argues that intentional and incidental learning are not only complementary, but that they positively require each other. Nation (2001a, 2001b and 2003) states that intentional learning should be under the control of students, however, the teacher should be responsible for showing students effective ways of learning by taking an informed, balanced and systematic approach to vocabulary teaching.

This paper presents an example of methodology which is aimed at intentional developing of undergraduates' vocabulary. The methodology makes use of student created content which is recycled and extended over a span of three years, it employs electronic tools, namely Google Docs and Quizlet, and involves both collaborative and individual work of learners. The paper first provides a brief overview of the findings related to vocabulary building strategies, discusses the position of vocabulary in English for academic and specific purposes and recalls the role of ICT (information and communication technologies) in vocabulary learning. The following part presents Google Docs, Quizlet and related research, and the last part describes the proposed methodology, discusses students' performance and shares insights resulting from practice.

Research on vocabulary building strategies

Vocabulary learning strategies facilitate the acquisition of new lexis as they help learners in discovering the meaning and consolidating a word (Nation, 2001a). Studies concerning vocabulary learning began to appear more frequently within the research on language learning strategies in the 1980s.

Since then, numerous authors have researched and classified vocabulary learning strategies. Notably Schmitt (1997), drawing upon previous works, designed a taxonomy of vocabulary learning strategies which then became a source for further development and research (e.g. Loucky, 2006, Nation, 2008, Nayan and Krishnasamy, 2015). Schmitt distinguished two groups of strategies: those for the discovery of a new word's meaning and strategies for consolidating a word. Each strategy is further categorized as a determination strategy (e.g. analysing part of speech, consulting dictionaries), social strategy (e.g. asking classmates for meaning, practising meaning in a group, interacting with native speakers), memory strategy (e.g. the loci method, the visualization method, the story telling method), cognitive strategy (e.g. verbal repetition, keeping a vocabulary notebook), or metacognitive strategy (e.g. using movies, using spaced word practice). A comprehensive overview of the literature on vocabulary learning strategies can be found e.g. in Gu (2003) and later in Atay & Oybulgan (2007). Gu (2003) argues that the best strategy should not be searched for, but rather consider the task, the learner and the learning context to choose and use a particular strategy effectively.

A number of studies have investigated which vocabulary strategies learners use and/or consider the most helpful; however, the results vary greatly depending on e.g. proficiency level, age, learning context and students' native language, as found in Schmitt (1997) or Nayan and Krishnasamy (2015). It was shown that successful vocabulary learners were active strategy users who were conscious of their learning and took steps to regulate it (Ahmed, 1989), however, at the same time, the findings indicate that students are not often aware of many vocabulary learning strategies. The researchers' recommendations are therefore in line with Nation (2001a) who advises the integration of explicit vocabulary teaching into classroom. As Altiner (2011) points out, teachers should help learners identify the target vocabulary, understand its importance, and organize and encourage repetition and revision.

Although many vocabulary building strategies exist, research shows that intentional learning using word cards belongs to one of the most efficient means of acquiring and retaining new vocabulary (cf. Foster, 2009). Word cards (or flashcards) are the popular method in which a learner writes a new word on one side of a card and its first language translation or a definition or a picture is on the other side. Nation (2001a, 2001b, 2003) considers flashcards to be even the most effective method, needless to say he suggests combining cards with e.g. association or keyword techniques or using a phrase/sentence if a word is difficult to remember.

There are several studies comparing the effectiveness of flashcards to words lists showing flashcards to be more effective (Nakata, 2008, Altiner, 2011). Moreover, detailed research shows a range of benefits which make paper flashcards efficient for learning vocabulary (Nation, 2008, Ashcroft & Imrie, 2014), such as individualizing and prioritizing the order, convenient size, enabling spaced repetition, recording a learner's performance over a period of time, numerous ways of presentation and revision. Nowadays, digital flashcards, e.g. cram.com, Quizlet, Studyblue, play a significant role in language learning as they offer even further benefits (more details in the part on ICT). Both paper and digital flashcards can be monolingual (providing a definition) or bilingual (giving a translation), however, the research about which of the two is more effective has not been consistent (Crandell, 2017: 10–12).

Vocabulary and English for Specific Purposes (ESP)

In the following section the term ESP will be considered in the meaning of Dudley-Evans and St. John (1998), i.e. encompassing English for Academic Purposes (EAP) and English for Occupational Purposes.

Nagy & Townsend (2012) state that academic and discipline-specific vocabulary can be considered the most obvious aspect of ESP and the lack of this vocabulary is often identified as an obstacle to student success. Nation (2001a) claims that technical vocabulary ranges from 1000–5000 words and thus ESP learners face a challenging task to fully develop their understanding of the discipline. Moreover, learning ESP vocabulary is difficult due to the infrequency of input and insufficient lack of exposure to target language (Amiryousefi, 2015). Chung and Nation (2003) suggest teachers can help learners gain general skills of recognizing technical words, interpreting definitions, learning word parts, and providing them with such tools as vocabulary strategies and they develop a four-step semantically based procedure for identifying technical terms.

Many students like to be provided with ready-made vocabulary lists, and researchers have designed several, e.g. Coxhead's Academic Word List (AWL) (Coxhead, 2000) or the Academic Vocabulary List (AVL) (Gardner and Davies, 2014), however, even the authors warn that such lists should be utilized only as a facilitative, not major, element of the language course. The study of Hyland and Tse (2016) even shows that various disciplinary fields do not usually share the same language features, which means that a general academic vocabulary could not sufficiently cater for the language

needs of every university study. Various specialized word lists can be found, e.g. medical, nursing, environmental, agricultural, chemistry, engineering word, many of which use a corpus-based approach and some being based on AWL (cf. Maher, 2016 and Coxhead, 2016).

ICT and vocabulary learning

Vocabulary has been in the focus of Computer Assisted Language Learning (CALL) since its very beginnings when drills were emphasized in the 1960s and 1970s, and, despite the later shifts towards the communicative potential of technology, developing learners' vocabulary with the use of computer programs continued to be subject of many studies (Chien, 2015). Specifically, there is research on various tools offering online flashcards (cf. Crandell, 2017). Nakata (2011) performed a comprehensive investigation of flashcard software; he analysed nine programs using seventeen criteria derived from previous studies, and found out that most programs maximise vocabulary learning, and increase student motivation. Later, Dizon (2016) provided a list of authors who showed the efficacy of digital flashcards. Altiner (2011) performed a study proving that the computer-based flashcards program Anki significantly improved students' learning of Coxhead's AWL (Coxhead, 2000).

Dizon (2016) noticed that Mobile Assisted Language Learning (MALL) has not only similar positive effects on vocabulary learning, but also the potential to give learners more flexibility than CALL. It gives students virtually limitless opportunities to study, promotes individualized informal learning and encourages learner autonomy (Godwin-Jones, 2011). Moreover, smartphones and tablets can also create new ways of interaction in the classroom (Kurzweil, 2016). Godwin-Jones (2011) shared a helpful resource list of mobile applications for vocabulary learning and related links. As for research comparing the outcomes of MALL and traditional learning, e.g. Azabdaftari and Mozaheb (2012) showed that the group of Iranian students using mobile-based flashcards scored much higher in a vocabulary test than the group using traditional paper flashcards.

Even though technology, and especially smartphones, are ever-present in the lives of today's students, research devoted to whether students do use such devices for educational purposes varies. While Cochrane (2015) found out that university students at a Japanese university do not use mobile applications for their studies without being prompted, Foti & Mendes (2014) came to the conclusion that the majority of MSc students of Occupational

Therapy program in the USA regularly utilize their mobile devices as learning tools.

Popular online tools: Google Docs and Quizlet

Google Docs and vocabulary building

Google Docs (officially Google Documents) is one type of cloud software offered by Google Drive (Google, 2017). As the name suggests, it is a tool for sharing and co-editing documents. It is free of charge for all gmail holders and it could be used simultaneously by a nearly unlimited number of persons. When implemented for teaching purposes, Google Docs can not only facilitate work, but can offer new opportunities, e.g. for generating various types of student-created content. Literature identifies several areas where this tool proved to be useful, collaborative learning and collaborative writing being the most common (cf. Bilová, 2017).

Several authors studied impacts of using Google Docs for collaborative learning by comparing the results of the same task in two groups of learners: one groups employing Google Docs, the other using traditional face-to-face setting. Liu at al. (2015) and Liu and Lan (2016) found out, apart from others, that active collaboration in Google Docs positively affects vocabulary development as the Google Docs group proved to have better vocabulary gain. Google Docs can be also successfully used for creating classroom glossaries or vocabulary logs (Bilová, 2017).

Quizlet – description

Quizlet is an online interactive tool (available also as a mobile application) assisting with learning vocabulary. Designed by Andrew Sutherland, it was publically launched in 2007 and has been further developed since; it was even recognized as the fastest growing US education site in 2015 by Similar-Web (2016). Users can create their own flash cards, or they can browse or copy others; more users can collaborate on one set. Cards can be imported from Word documents for example, and they can be also exported. Quizlet sets can be made public or they can remain private. There are several ways of working with sets of cards: learning words (Flashcards), checking progress (Learn), spelling the word you hear (Spell), taking randomized practice tests (Test), playing games for review (Match and Gravity). Test mode includes short answer, true or false, matching, multiple choice, or combination of these types. Students can also use Audio mode for listening to

the correct pronunciation. Some modes are time-based, others keep track of missed answers and show success rate.

Teachers can set up classes and see their students' progress. For a fee, there are other teacher options available: pictures can be added and success rate of many classes can be recorded. Apart from classical term-definition/translation flashcards, Quizlet can be used for practising irregular verb forms, collocations, or prepositions. Quizlet software met most of Nakata's criteria (Nakata, 2011), thus being rated among the best flashcard programs.

Besides individual work with flashcards, Quizlet can be used as a classroom activity with the game named Quizlet Live (Quizlet Live, 2017). It is a team-based game which randomly groups players in teams. Each team member uses their laptop or mobile device and they race to match the given vocabulary terms with their definition/translation/picture. Correct answers move teams forward, however, a wrong answer sends a team back to zero. Students need to communicate in their teams to make sure they pick the right option as only one in the team has the correct answer. At the end of the game, there is a summary of what students know and where students made mistakes.

Quizlet – use and research

Quizlet can be used both in and out of the classroom, a number of papers and blogs sharing examples of its use can be found: e.g. Foster (2009) presents Quizlet as a vocabulary revision tool, as a collaborative learner-generated vocabulary log and as an instrument for conducting informal in-class assessment; Pham (2016a) and Pham (2016b) describe ways how Quizlet can facilitate student learning (pronunciation, practicing, spelling, and seeing progress) as well as teacher preparing class material (generating class activities, increasing motivation, checking progress). Kurzweil (2016) provides a useful description with screenshots and gives reasons why Quizlet, in combination with Quizlet Live, helps his students: it provides spaced repetition practice, creates opportunities for peer teaching, balances competition and cooperation, and provides motivation to study.

By examining the benefits of Quizlet through the Substitution Augmentation Modification Redefinition model, Ashcroft & Imrie (2014) showed that Quizlet can generally transform classical paper flashcards method into a more effective vocabulary learning and teaching because of additional, new learning experience. Crandell (2017) names two reasons why Quizlet enhances the learning experience beyond paper flashcards: listening to the pro-

nunciation and more activity required from learners. Quizlet was reported the most often used app for general educational purposes by MSc students in the study of Foti & Mendes (2014). Despite its wide use, the formal research evaluating its benefits in language learning is not extensive.

Several studies show that Quizlet can be used to create effective vocabulary learning environment. Stroud (2014) used Quizlet instead of a textbook in English writing courses in a Japanese university; the students worked with the app for 30 minutes in each lesson and a final survey showed that Quizlet increased the behavioural, emotional, and cognitive engagement of classes. Imrie (2014) found that students using Quizlet were more successful than those using paper flashcards as they scored better in a vocabulary test. Bauer-Ramazani (2015) performed an action research, the result of which was that by using Quizlet, students of Academic English showed not only substantial improvements in vocabulary learning and retention, but also increased enjoyment and motivation to study vocabulary. Chien (2015) compared Quizlet with other two online vocabulary flashcard websites (Study Stack and Flashcard Exchange) using criteria based on Nakata (2011). He found out that all three programs helped Taiwanese college freshmen extend their vocabulary in terms of both meaning and form, and Spell mode in Quizlet was rated the most popular activity of all, followed by other Quizlet revision options. Dizon (2016) examined the efficacy of Quizlet for studying academic vocabulary and the results of the pre- and post-tests showed that the students made statistically significant gains and a questionnaire revealed the programme was considered useful and easy to use method for studying vocabulary. Crandell (2017) in her thesis project created a Quizlet set of cards with the first 500 words of AVL (Gardner and Davies, 2014). She describes the method of selecting and adopting words for definition cards and translation cards and presents feedback from reviewers. 20 English teachers working with the AVL evaluated the flashcard sets Crandell created; all of them felt they were a helpful tool and all of them would recommend them to learners. Further, it might be of interest that it has been shown that Quizlet helps students with learning disabilities (Vargas, 2011). The report of the experience of Quizlet Live can be found in Wolff (2016) who used it in technical English classes of third-year engineering students at Meiji University and a survey showed that students enjoyed the activity and at the same time Quizlet improved vocabulary acquisition, improved test score and increased their motivation to learn.

Google Docs and Quizlet used for collaborative and individual vocabulary building

Teaching context

The methodology of teaching described below was used in the course of Legal English at the Faculty of Law of Masaryk University. It is a four semester course consisting of twelve 90-minute sessions each semester. The syllabus is topic based, with tailor-made teaching materials. The lessons tend to be interactive, students practice language skills as well as professional skills. Although the lessons include vocabulary practice tasks, most of the vocabulary learning is expected to be students' responsibility and takes place at home. The selection of vocabulary is based solely on the class materials, however, students are not provided with any explicit list of terms, generally, they are encouraged to keep their own individual vocabulary notebooks. Students are tested on vocabulary knowledge at the end of every semester in the form of translation of chunks of language and defining terms.

Several years ago I started using Google Docs in the classroom for various tasks and decided to implement them as a platform for collaborative logs of what is learned in the lessons. Two years ago I decided to combine this content with Quizlet. The following part describes the procedure which took three consequent years. I implemented it within the second semester of the course as the students are already familiar with the intricacies of legal English and also because the third and fourth semester are more skills based, with a smaller amount of new vocabulary compared to the second semester. My intention as a teacher was not to create only a list of words, but to show it within the context as well. Google documents were created by several seminar groups, however, the work with Quizlet was set to one group only as I was not teaching more of them. Although the methodology was used in legal English classes, it can be implemented in any English language course.

Students generated content using Google Docs and Quizlet – description of the teaching methodology

As mentioned above, the methodology was implemented within the second semester which is taught in Spring. The syllabus covers four topics: Criminal Law and Criminal Procedure, the Law of Torts, the Law of Property, and Intellectual Property. The work of the consequent three years can be described in the following steps.

Spring 2015 – collaborative work in Google Docs: Students were grouped into pairs and each pair was assigned to summarize the content of one

lesson into the teacher created Google document. The aim was to have an overview of the whole semester in a kind of learning log, including the list of vocabulary. In practice, students signed up for one of the weeks of the semester, needed to pay special attention in that particular lesson and noted down the summary of the main points, definitions of terms and translation of legal English vocabulary used in the lesson. The students themselves were responsible for the content, anyone could correct any mistakes and the overview was available for further use, e.g. students could download and modify it in any way.

Spring 2016 – transforming the vocabulary from the Google document into Quizlet: I chose the best of the existing Google doc summaries from the previous year and presented them to the current second semester students. Again, the students were grouped into pairs according to the weeks and their task was to transform the definitions and translations from the particular lesson into the teacher created Quizlet sets. Students could use the lists and definitions from the Google docs, however, they were strongly advised to check (and correct if necessary) and supplement them. By the end of the semester, students had created eight sets of vocabulary, two for each topic, i.e. Criminal Law Definitions, Criminal Vocabulary Translation, and so on. The sets were then available for all students to work with as they wished. The aim was to enable the students to learn online/mobile intentional vocabulary, and at the same time enable them to view the content as a whole in the Google document.

Spring 2017 – creating example sentences in Quizlet sets: Students were provided with the eight Quizlet sets for their own practice. Further, the teacher created a new Quizlet set by copying the terms from 2016 sets and labelled it Example Sentences. The task was individual this time. Students were asked to write down 10 example sentences into the Example Sentences cards for words/collocations of their own choice; they were not allowed to select those for which an example sentence had already been noted down. Although Quizlet allows multiple editing, it does not show any changes to the author, so students were asked to email their sentences to the teacher as well. The aim was to enable the students' intentional learning of mobile vocabulary, with the use of existing sets and to encourage them to bear in mind the context by searching for example sentences.

Challenges of teacher instruction

The instructions in Spring 2015 were quite simple. The majority of students had already been familiar with Google Docs, so it was not necessary to go into details how to work in this online environment. The instructions

could therefore focus on what to include in the overview. Apart from giving the general instructions to the whole class, I discussed the task with a pair from the first week to make sure they understood well and set up a good example for others.

The Quizlet instructions in Spring 2016 and 2017 included repeated technical explanations because, even though Quizlet is rather intuitive, if students do not work with the application immediately during/after the explanation, they forget most of the instructions.

The most problematic instructions were found to be “example sentences” in Spring 2017. Although I attempted to prepare them carefully, the instructions did not prove to be sufficient. I set the following rules:

- the sentence is not very long or complicated
- the sentence gives appropriate context
- the sentence is not a definition
- the sentence may include other useful words
- you can make up your own sentences, or use sentences from a dictionary, an online search machine, a corpus, or any other sources

Apart from the rules, the instructions included an example: a sentence for “solicitor” could be “She has instructed solicitors to deal with this legal matter on her behalf.”

Students’ performance – the lessons learnt about students

It is impossible to describe the extent of students’ individual and pair work in Spring 2015 and 2016 as the content of every week varied considerably, some lessons included plenty of new vocabulary, some lessons covered phrases used in spoken communication, sometimes we analysed a case study. The work thus was not distributed equally or fairly – however, the students who were rather busy with the vocabulary did not complain as they considered it as a good preparation for the coming test. In the final feedback at the end of semester, the majority of students appreciated having the Google doc overview and/or Quizlet sets.

It was easier to collect feedback in Spring 2017 as every student had the same task, the only disadvantage could be that those who did the task sooner had a bigger choice of vocabulary. Nonetheless, the number of cards was much higher than the number of students, so even the last student to complete the task had a choice. When collecting feedback, I was interested in two matters. First, how successful students were with providing example sentences, and second, whether they used the Quizlet sets to their advantage.

As far as the first issue was concerned I was able to observe any problems with example sentences immediately when a student sent them by email.

As it could be anticipated, students with good level of English fulfilled this task at the beginning of semester and they provided good quality and illustrative sentences. Students with a poorer level of English had various kinds of difficulties. If they made up their own sentences, they often made grammatical and/or lexical mistakes. If they searched for sentences online, they found sentences from another context, or chose sentences that were too long and included unknown vocabulary, which made the sentences difficult to understand. Another problem was that students wrote definitions of a term instead of an example sentence. If a student submitted sentences with such deficiencies, they were asked to re-write them.

Students' examples of sentences which did not meet the required standard:

- “The resort’s owner won because the ballplayer did not prove the owner knew the deck was defective or that the owner did not exercise reasonable care.” (the term was “reasonable care”, but the sentence is too long and does not give a clear context)
- “Since the Conveyancing (Scotland) Act 1874, there is, however, not much distinction between burgage tenure and free holding.” (the term was “freehold”, the student did not keep the form of the word and included vocabulary unknown to students)
- “The suspicious has a right of plea-taking.” (the term was “plea-taking”, the student confused “suspect” and “suspicious” and did not provide sufficient context for understanding the term)

As for the second issue I was interested in, students filled in a questionnaire enquiring about the way they worked with Quizlet. I received 18 answers with the following results:

- all 18 students used Quizlet sets for learning and/or revising vocabulary
- 4 students exported the sets for their individual use, but no student copied a set to create his/her own Quizlet set
- as for the functions offered by Quizlet, 16 students used the “Flashcards” mode, 8 “Learn”, 8 “Spell”, 10 “Test”, 8 “Match”, 8 “Gravity”
- most of the students used Quizlet mainly for learning/revision before the test
- 2 students made use of the Audio function to check the pronunciation
- 2 students restricted the sets to the words they do not know
- 4 students found example sentences useful and would appreciate them with all the terms, while 4 considered them useless.

When writing free comments, all students appreciated the learning options Quizlet offers, they often commented that they found learning words easier and faster than in other ways. Some students are planning to use the

application for additional purposes than just learning legal English.

Considering all three stages, the students' performance in every semester contributed to the content of the classes and facilitated their preparation for the final vocabulary testing. The proposed methodology therefore promotes student autonomy and out-of-class learning activity. Apart from that, student work becomes an invaluable teaching resource which can be used further. I evaluate the methodology as successful and I am willing to use it again, with certain modifications, e.g. paying more attention to the instructions and checking students' understanding of the task objectives.

Outcomes compared with research

The students' feedback from all three Spring periods shows that Google Docs and Quizlet are considered efficient tools for vocabulary learning. However, more emphasis on instructions and special attention paid to weaker students are recommended.

At this moment, I would like to point out three other insights. The first deals with the range of options for learning vocabulary students have in Quizlet, the second one with the implementation of example sentences and the third one with students' ability to use dictionaries efficiently.

Quizlet with its many learning/revising options and the existence of three types of sets provide students with multiple vocabulary learning strategies, which promotes more successful vocabulary learning (cf. Crandell, 2017). The questionnaire revealed that students did use various strategies, however, not many students made use of individualized learning, e.g. restricting the set to the words they themselves have problems with or exporting the sets for their own use. Having three separate types of sets, i.e. translation, an English definition, a word with an example sentence, also facilitates different learning styles and offers multiple practice: some learners prefer translations, some definitions, and some appreciate example sentences.

Research on including example sentences in flashcards is rather scarce and does not yield consistent results. Folse (2004) found out that simple vocabulary lists lead to better vocabulary retention than lists with more information, i.e. less information is better for rote learning (if flashcards are preferred by a student). On the other hand, Baicheng (2009) came to the conclusion that using example sentences in vocabulary learning promotes learners' vocabulary gain and retention, and further, it leads to better information processing and slows down the rate of memory fading. The question also remains whether it is more efficient if learners create their own sentences, or if they look them up in a dictionary. Moreover, students' level

of English certainly plays role as well. My experience shows that weak students had problems finding an illustrative example sentence and the choice of their sentence often indicated that they did not understand the word itself properly. This goes in hand with the assertion of Kinsella et al. (2003) that simple writing/copying a sentence with new vocabulary before a student study word meaning is not helpful.

Surprisingly, nearly half of the students preferred writing their own example sentences to using dictionaries or Internet search engines, which could be caused by the fact that they do not know how to use a monolingual dictionary for maximum benefit. This is what the research suggests. Nation (2003) states that “learners tend to use dictionaries in limited ways, not making the best use of the wide range of information”. Even though the more contemporary findings show that online dictionaries are able to serve users better than their paper predecessors, their efficient use is dependent on the user’s reference skills and digital literacy (Lew & Schryver, 2014).

Conclusion

My experience shows that both Google Docs and Quizlet can be helpful and efficient tools for both language learners and teachers. Students are provided with more learning options and greater autonomy, and a teacher can obtain more feedback and insights into student learning. Quizlet and Google Docs can promote and facilitate both collaborative and individual work. There is a whole range of possibilities how to use these online tools, so it is necessary for a teacher to plan carefully for which purposes they are going to use them. The tools should always meet learners’ need. Teachers should be aware of the benefits of online study tools; however, they should carefully examine whether CALL or MALL is appropriate for their teaching context (Dizon, 2016). Students should be aware that cramming vocabulary is only part of language learning. They should also be aware that their time in the lesson complements the intensive vocabulary building before the test.

Although my experience confirms that Quizlet enables cooperation, sharing and interaction (Ashcroft & Imrie 2014), I agree with Nation (2003) who points out that such deliberate strategies require investment from the teacher and students, and they need to be practised. The teacher is thus advised to allow students sufficient time and sufficient amount of instruction for getting to know the technology and the task.

R E F E R E N C E S

- Ahmed, M.O. 1999. 'Vocabulary learning strategies' in P. Meara (ed.). *Beyond words*, 3–14. London: British Association for Applied Linguistics.
- Altiner, C. 2011. *Integrating a Computer-Based Flashcard Program into Academic Vocabulary Learning*. MSc Thesis. Iowa State University.
- Amiryousefi, M. 2015. 'Individuality in higher education: The use of the multiple-mnemonic method to enhance ESP students' vocabulary development (depth and size) and retention.' *Applied Research on English Language*, 4(1): 45–58.
- Ashcroft, R. J. and A. C. Imrie. 2014. 'Learning vocabulary with digital flashcards in N. Sonda & A. Krause (eds.). *JALT2013 Conference Proceedings*. Tokyo: JALT.
- Atay, D. and C. Oybulgan. 2007. 'Memory strategy instruction, contextual learning and ESP vocabulary recall.' *English for Specific Purposes*, 26: 39–51.
- Azabdaftari, B. and A. M. Mozaheb. 2012. 'Comparing vocabulary learning of EFL learning by using two different strategies: mobile learning vs. flashcards.' *EUROCALL Review*, 20(2): 48–59.
- Baicheng, Z. 2009. 'Do example sentences work in direct vocabulary learning?' *Issues in Educational Research*, 19(2): 175–189.
- Bauer-Ramazani, C. 2015. 'Action Research: Using Quizlet for Mobile Vocabulary Learning and Retention.' *TESOL 2015 Presentations*. Retrieved 1 September 2017 from <http://tesolpresent.pbworks.com/w/page/90006548/Action-Research-Quizlet>
- Bilová, Š. 2017. 'Google Docs in Language Teaching and Learning.' *CASALC Review*, 7(2), in print.
- Chien, C.-W. 2015. 'Analysis the Effectiveness of Three Online Vocabulary Flashcard Websites on L2 Learners' Level of Lexical Knowledge.' *English Language Teaching*, 8(5): 111–121.
- Chung, T. and P. Nation. 2003. 'Technical vocabulary in specialised texts.' *Reading in a Foreign Language*, 15(2): 103–116.
- Cochrane, R. 2015. 'Activities and reflection for influencing beliefs about learning with smartphones' in Helm, Bradley, Guarda, & Thouëсны (eds.) *Critical CALL – Proceedings of the 2015 EUROCALL Conference*, Padova.
- Coxhead, A. 2000. 'A new academic word list.' *TESOL Quarterly*, 34: 213–238.
- Coxhead, A. 2016. 'Approaches and perspectives on teaching vocabulary for discipline-specific academic writing' in Flowerdew and Costley (eds.) *Discipline-Specific Writing: Theory into practice*. Routledge.
- Crandell, E. R. 2017. *Quizlet Flashcard for the First 500 Words of the Academic Vocabulary List*. MA Thesis, Birmingham Young University.
- Dizon, G. 2016. 'Quizlet in the EFL Classroom: Enhancing Academic Vocabulary Acquisition of Japanese University Students.' *Teaching English with Technology*, 16 (2): 40–56.

- Dudley-Evans, A. and M. J. St. John. 1998. *Development in ESP: a multi-disciplinary approach*. Cambridge: Cambridge University Press.
- Folse, K. S. 2004. 'Myths about Teaching and Learning Second Language Vocabulary: What Recent Research Says.' *TESL Reporter*, 37(2): 1–13.
- Foti, M. K. and J. Mendes. 2014. 'Mobile Learning: How Students Use Mobile Devices to Support Learning.' *Journal of Literacy and Technology*, 15 (3): 58–78.
- Foster, H. 2009. 'Building learner-generated vocabulary logs with Quizlet.' *The Language Teacher*, 33(12).
- Gardner, D. and M. Davies. 2014. 'A new academic vocabulary list.' *Applied Linguistics*, 35: 305–327.
- Godwin-Jones, R. 2011. 'Emerging technologies: mobile apps for language learning.' *Language Learning & Technology*, 15(2): 2–11.
- González-Fernández, B. and N. Schmitt. 2017. 'Vocabulary Acquisition' in Shawn Loewen, Masatoshi Sato (eds.) *The Routledge Handbook of Instructed Second Language Acquisition*, Abingdon: Routledge.
- Google. 2017. *Google Free Tutorials*. Retrieved 1 September 2017 from <http://www.gcflearnfree.org/googledocuments/>
- Gu, P. Y. 2003. 'Vocabulary Learning in a Second Language: Person, Task, Context and Strategies.' *The Electronic Journal for English as a Second Language*, 7(2). Retrieved 1 September 2017 from <http://www.tesl-ej.org/wordpress/issues/volume7/ej26/ej26a4/?wsc>
- Hyland, K. and P. Tse. 2009. 'Academic lexis and disciplinary practice: corpus evidence for specificity.' *International Journal of English Studies*, 9(2): 111–129.
- Imrie, A. C. 2014. 'Using Quizlet Flashcards to Study Vocabulary' in M. McLaren, M. Al-Hamly, C. Coombe, P. Davidson, C. Gunn, & S. Troudi (eds.) *Proceedings of the 19th TESOL Arabia Conference: From KG to College to Career*. Dubai: TESOL Arabia Publications.
- Kinsella, K., C. S. Stump and K. Feldman. 2002. 'Strategies for Vocabulary Development.' Pearson Prentice Hall: *eTeach*. Retrieved 1 September 2017 from http://www.phschool.com/eteach/language_arts/2002_03/essay.html
- Kurzweil, J. 2016. *How I Made Learning Fun in My Classroom using Quizlet Live*. Retrieved 1 September 2017 from <https://quizlet.com/blog/how-i-made-learning-fun-in-my-classroom-using-quizlet-live>
- Lew, R. and G-M. Schryver. 2014. 'Dictionary Users in the Digital Revolution.' *International Journal of Lexicography*, 27(4): 341–359.
- Liu, S. and Y-L. Lan. 2016. 'Social Constructivist Approach to Web-Based EFL Learning: Collaboration, Motivation, and Perception on the Use of Google Docs.' *Educational Technology & Society*, 19 (1): 171–186.

- Liu, S., Y-L. Lan and C. Ho 2015. 'Exploring the Relationship between Self-Regulated Vocabulary Learning and Web-Based Collaboration.' *Educational Technology & Society*, 17 (4): 404–419.
- Loucky, J. P. 2006. 'Maximizing Vocabulary Development by Systematically Using a Depth of Lexical Processing Taxonomy, CALL Resources, and Effective Strategies.' *CALICO Journal*, 23(2): 363–399.
- Maher, P. 2016. 'The use of semi-technical vocabulary to understand the epistemology of a disciplinary field.' *Journal of English for Academic Purposes*, 22: 92–108.
- Nagy, W. and D. Townsend. 2012. 'Words as Tools: Learning Academic Vocabulary as Language Acquisition.' *Reading Research Quarterly*, 47(1): 91–108.
- Nakata, T. 2008. 'English vocabulary learning with word lists, word cards and computers: implications from cognitive psychology research for optimal spaced learning.' *ReCALL*, 20(1): 3–20.
- Nakata, T. 2011. 'Computer-assisted second language vocabulary learning in a paired-associate paradigm: a critical investigation of flashcard software.' *Computer Assisted Language Learning*, 24(1): 17–38.
- Nation, P. 2001a. *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- Nation, P. 2001b. 'How good is your vocabulary program?' *ESL Magazine*, May-June: 22–24.
- Nation, P. 2003. 'Effective Ways of Building Vocabulary Knowledge.' *ESL Magazine*, July-August: 14–15.
- Nation, P. 2008. *Teaching Vocabulary: Strategies and Techniques*. Boston: Heinle Cengage Learning.
- Nayan, S. and H. N. Krishnasamy. 2015. 'A Preliminary Study on Vocabulary Learning Strategies Used by the Students from the Faculty of Accountancy.' *International Journal of Languages, Literature and Linguistics*, 1(1): 10–14.
- Pham, H. 2016a. 'Integrating Quizlet and Socratic into Teaching Vocabulary' in *Issues in Language Instruction at the Applied English Centre*, A Journal for Practicing & Interpreting TESL at the University of Kansas. The VNTP Issue: 27–28.
- Pham, L. 2016b. 'Using Quizlet to Engage the Students in Learning Vocabulary' in *Issues in Language Instruction at the Applied English Centre*, A Journal for Practicing & Interpreting TESL at the University of Kansas. The VNTP Issue: 29–30.
- Quizlet Live. 2017. Retrieved 1 September 2017 from <https://quizlet.com/en-gb/features/live>
- SimilarWeb. 2016. Retrieved 1 September 2017 from <https://www.similarweb.com/blog/similarweb-digital-visionary-awards-2015>

- Schmitt, N. 1997. 'Vocabulary Learning Strategies' in N. Schmitt and M. McCarthy (eds.) *Vocabulary: Description, acquisition and pedagogy*. Cambridge: Cambridge University Press.
- Schmitt, N. 2008. 'Instructed second language vocabulary learning.' *Language Teaching Research*, 12(3): 329–363.
- Stroud, R. 2014. 'Students engagement in learning vocabulary with CALL' in S. Jager, L. Bradley, E. J. Meima, & S. Thouëсны (eds), *CALL Design: Principles and Practice; Proceedings of the 2014 EUROCALL Conference*, Groningen.
- Vargas, J. M. 2011. *Modern learning: Quizlet in the Social Studies classroom*. A Thesis Bachelor of Arts in Education, Wichita State University. Retrieved 1 September 2017 from <http://soar.wichita.edu/bitstream/handle/10057/3986/t11049-Vargas.pdf?sequence=3&isAllowed=y>.
- Wolff, G. 2016. 'Quizlet Live: The Classroom Game Now Taking the World by Storm.' *The Language Teacher*, 40(6): 25–27.