REFLECTIVE PRACTICE

The use of *Wordclouds* for vocabulary retention in the English for Psychology classroom

Begoña Bellés-Fortuño*; Ana-Isabel Martínez-Hernández**
Universitat Jaume I/IULMA, Spain

*bbelles@uji.es | **anhernan@uji.es

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Abstract

Several studies have revealed that computer applications offer a vast potential for teaching and learning. Open Educational Resources (OERs) can be especially beneficial to generate innovative abilities in the classroom related to new means of communication and collaboration (Conole and Alevizou, 2010). As regards the teaching of foreign languages, OERs have been acknowledged to be a useful tool for vocabulary acquisition (Bărbuleţ, 2013), for enhancing text reading (Alkahtani, 1999), for writing (Krajka, 2000), and for improving pronunciation (Lee, 2008). Computer-assisted language learning (CALL) programmes as a means of learning-by-playing in the classroom have also proven to facilitate the acquisition of English vocabulary and pronunciation through games (Young & Wang, 2014).

This study aims to explore the implementation and use of an online tool such as *Wordclouds* in the English for Psychology classroom at university in order to improve vocabulary retention and the overall learning of English in the specific field of Psychology. By means of exposing students to psychological pathologies, they will be asked to

generate vocabulary word clouds to check their vocabulary retention and keyword selections at two different stages, being exposed to specialised texts before and after the reading of those texts later. Computer applications in the ESP classroom are combined here with group work development. Previous research has shown that working collaboratively facilitates learning, primarily through comparative reflection and peer learning (Angehrn & Maxwell, 2009; Evans & Cuffe, 2009).

Results have shown that the exploitation of students' background knowledge through the tool *Wordclouds* has definitely aided vocabulary retention of keywords about psychological pathologies as well as improved their English for psychology language accuracy.

Keywords

English for Health Sciences, OERs, word cloud, psychological disorders.

1. Introduction

Over the last 20 years, within the European Union (EU) framework, Higher Education Institutions have actively promoted language learning and tried to improve the quality of foreign language teaching. Education and innovation are undoubtedly elements to face the challenges of Europe (Kwiek, 2009), and therefore, the construction of European education policy has become paramount for the EU. Part of this education policy focuses on the development of eight key competences (European Council, 2006), among which we would like to highlight the following: a) Communication in foreign languages, b) mathematical competences and basic competences in science and technology, and c) digital competences. Another general aim relevant for the study presented here has to do with the European Reference Framework and the idea of developing the necessary competences for "personal fulfilment, active citizenship, social cohesion and employability" (European Council, 2006: 394/13).

For optimal communication in foreign languages, as the EU competences indicate, it is essential to enhance students' communicative competence; the communicative approach needs to be based on "real communicative needs and recognises the importance of the context beyond the sentence for the appropriate use of language." (Aguaded & Pozo, 2011) However, in order to acquire communicative competence, it is not enough to have competence knowledge; individuals also need to gain the capacity for implementing these competences (Widowson, 1983; Candlin, 1986). To do so, the promotion of techniques and procedures in the language classroom becomes essential; some of these techniques include the ability to handle technological resources that allow learners to treat new multimodal modes of information that break into the language teaching space. Within this frame, the teaching of foreign languages in higher education institutions has to develop mechanisms to adapt to new technologies, enhance communicative competence and promote employability among students.

Along these lines, Higher Education Institutions worldwide have developed new policies to generate OERs for tertiary education. The objective is to offer accessibility of OERs to the vast academic community, although not all members of the community accept their broad use (Bellés-Fortuño & Bellés-Calvera, 2017, 2018).

Several studies have revealed that computer applications offer vast potential for teaching and learning. Open Educational Resources (OERs) can be especially advantageous to generate innovative abilities in the classroom as far as new means of communication and collaboration are concerned (Conole & Alevizou, 2010). When applied in the language classroom, some authors have stated that OERs can benefit teachers since preparation

time can be substantially reduced (Wenk, 2010). At the same time, a more learner-centred approach is used, thus reducing teachers' isolation, and giving the opportunity to generate more dialogic activities (Mayes & Freitas, 2004) which enhance a communicative environment. The myriad of online resources allows teachers to make wise choices depending on the language ability they would like to improve or reinforce in students.

Higher Education Institutions have been encouraging and introducing the use and creation of OERs in the last decade urged by the European policies published after the Bologna Declaration. OERs have been attributed with many beneficial learning and teaching characteristics for the university classroom since, due to their free and easy access, they undoubtedly have the potential of becoming universal and available to the whole learning and teaching community. However, some authors have noted the risks of OERs regarding social exclusion. Not all members of the educational community look favourably upon the use of new technologies as the only tools for the teaching and learning process (Bellés-Fortuño & Bellés-Calvera, 2017).

The truth is that neurologically, human beings are not predisposed to listen, understand, and process new content and specific terminology in a lecture for longer than an hour, full attention minimises gradually after the first 20 minutes (Baddeley, 1992). The use of OERs involves students in their learning process. It makes it more dynamic, generating a more productive space for a successful learning process and promoting self-learning through peer-to-peer collaboration as well as discovery learning.

For this study, we used the tool *Wordclouds* (Zygomatic, 2009) in the English for Psychology classroom to aid vocabulary retention and enhance general specific language acquisition. *Wordclouds* is a free online tool which creates visual summaries of entire texts showing the most common words in it, i.e., keywords, in different font sizes to indicate frequency within the text. Miley and Read (2011) consider this a flaw as the most common do not always equal the most meaningful. Given the multimodal characteristics of *Wordclouds* (Zygomatic, 2009), students can visually retain mental vocabulary maps to better internalise specific words within the field of study as well as identifying patterns of spelling.

2. Method

This research has been conducted in a higher education context in the degree of Psychology at a Spanish university, specifically in the English for Psychology classroom. This subject's main aim, which is taught in the second semester of the first year, is to acquaint students with specialised terminology and basic grammatical structures. This is the only subject taught in English in the Psychology degree for which no background knowledge of the subject (i.e., English) is required – as stated in the course syllabus. However, it is planned and designed under the assumption that students have already reached an A2+ or B1 level since that is the level of the university entrance exam, the most common path to access university in Spain, and which they are required to pass. Therefore, activities and results reflected the plurality of levels within the group. Despite not having any language requirement to access the subject, the contents of the subject work towards and aim at a B2 level, as mentioned in the subject syllabus:

> *After having taken the subject English for Psychology and having passed all the requirements concerning both knowledge and use of the English language in the other subjects in the degree course, on graduating, students are expected to have attained an intermediate level of English (equivalent to a B2 level in English within the Common European Framework of Reference for Languages, CEFR)* (Course Syllabus 2018-2019)

As for competences, students should acquire an instrumental command of the English language, as well as develop autonomous learning and use English lexis effectively in a specific environment, i.e. psychology, among others, as stated in the syllabus. Given the challenging reality and demanding outcomes for both students and academic staff, teachers had to find new engaging ways to boost student-centred learning, and *Wordclouds* (Zygomatic, 2009) ticked all the boxes.

Within the English for Psychology classroom, students have to become acquainted with and learn different types of psychological disorders to be able to describe them, as part of the curriculum. They should be able to learn, know, use and talk about different psychological disorders in English, insofar as they understand specific texts in their fields and can communicate with future colleagues in a work environment. Thus, students were provided with a sampling of texts that included disorders such as ADHD (Adult Attention Hyperactivity Disorder), phobias, dementia, hoarding, OCD (Obsessive Compulsive Disorder) or autism, among others. The selection of texts was meticulous, and many factors were considered. First and foremost, content, as the texts had to be relevant to the task and unit. Second, the class English level disparity, since the text had to be accessible to all. Third, length. The text could neither be too short; otherwise, it would not contain the amount of new vocabulary required for the task, nor too long, considering it had to be read during the lesson.

Wordclouds (Zygomatic, 2009) was used at the beginning of the experiment as a pre-task, and at the end as a post-task. The aim of the pre-task (before reading the texts) was to activate students' schemata and test their already existing knowledge on the topics. The post-task, i.e., activity done after having read the texts, however, intended to show how the vocabulary acquired related to the allotted psychological disorder. The goal of completing both tasks was to show how to measure, analyse, and study the amount of new vocabulary learnt related to psychological pathologies. Firstly, in activity 1, students were distributed in groups and were given a topic disorder to work on. Relying on their background knowledge and previous vocabulary, students had to brainstorm in groups hyponyms related to the allotted disorder, to create the first word cloud. Secondly, activity 2 consisted of generating a list of words for each psychological disorder - i.e., ADHD, phobias, dementia, etc. (see section 2.2 Materials), including a definition of each term or pathology, the teaching objective was to broaden the students' vocabulary knowledge so that they can use it in the future for their professional development. These useful lists of words were generated with the help of text analysis, that is, each group had a specific disorder that resulted in a relevant glossary (i.e., vocabulary list) to study and retain accompanied by the word definition, all done in an integrative and dynamic way (see Appendix 2 for Bereavement glossary sample). As far as possible, they were asked to define the words with their previous knowledge and own words already learned and extracted from the texts, without copying the definitions from any place, although the use of online dictionaries was allowed to give some support. Thirdly, and lastly, once the texts had been analysed and the relevant vocabulary selected and added to their glossaries, participants were now ready to show the knowledge they had acquired by designing a new word cloud. Supposedly, the students' knowledge of psychological pathologies was broader and deeper; therefore, more vibrant and denser word clouds were expected.

The purpose of using *Wordclouds* (Zygomatic, 2009) in class was, on the one hand, to promote student-centred activities focused on vocabulary acquisition. On the other hand, we aimed at enhancing collaborative work within the classroom since students had to agree in their groups on how relevant the chosen keywords were to create the word cloud that would best visually depict the given disorder. *Wordclouds* offers the option of introducing a word list, not just text, with which students could edit the relevance of the word within the word cloud by assigning different numbers to those words (Fig. 1). These numbers would correspond to the weight of the word within the word cloud, i.e., 10 is

higher than 3; thus, the word will show bigger. Word clouds are usually a visual summary of the most common words in a text, which, as mentioned above, can be considered a disadvantage (Miley & Read, 2011) since, frequently, the most common words are not the most relevant ones. However, this drawback was overcome for this study by letting students choose how relevant a word was in defining the disorder. Then they would modify the parameters to obtain the desired results by introducing a number before the word to indicate its weight. They could modify the number as many times as necessary until they reached the perfect combination of sizes (Fig. 1).
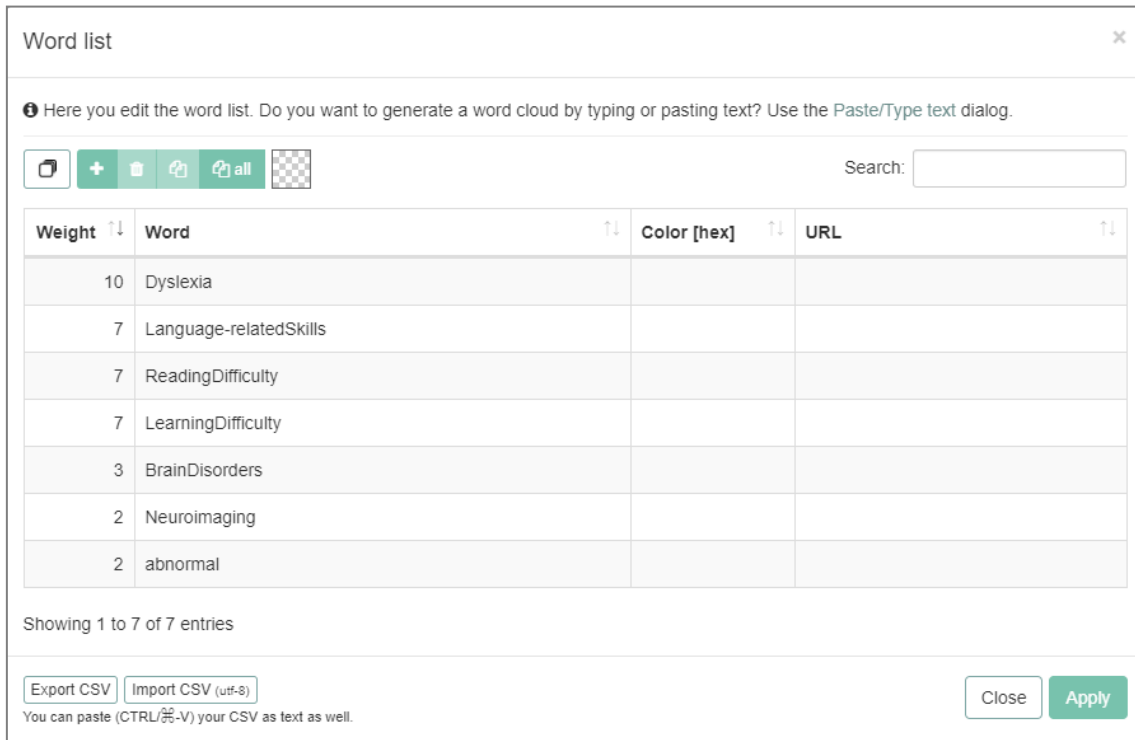

Figure 1. Modification of parameters.

Data was collected from the students' first and final word clouds, i.e., the number of words each group could produce, and the students' performance in both word clouds was then compared and contrasted. The results were analysed from different perspectives, such as collaboration, language level, vocabulary acquisition and errors. On the one hand, the data revealed a boost in student's motivation since collaborative work encouraged participation and, on the other hand, a significant difference in language proficiency among students.

2.1. Participants

The subjects of the study were 31 first-year undergraduate Psychology students enrolled in the *English for Psychology* module, in which English is taught as a foreign language. Within this educational setting, students are exposed to several specialised texts – written and spoken – dealing with the specific vocabulary of their field of knowledge, which is essential for the development of the four skills. The examined group was exposed to a series of specialised texts addressing psychological pathologies, as well as to the OER *Wordclouds* (Zygomatic, 2009) to boost vocabulary acquisition, given that part of the final grade was devoted to glossary-making and specific vocabulary testing.

2.2. Materials

Laptops and/or mobile phones were required to develop this session. Therefore, the students were asked beforehand to bring them to the lesson. The students were presented

with a list of eleven Psychological disorders to be learnt in class as part of the curriculum. After the *English for Psychology* module, the students are supposed to be able to talk and communicate with their classmates about different disorders. These activities aim to provide the students with specific vocabulary related to their field of knowledge and broaden their vocabulary. The disorders presented in class were:

- ADHD (Attention Deficit and Hyperactivity Disorder)
- Phobias
- Dementia
- Hoarding
- OCD (Obsessive Compulsive Disorder)
- Self-harm
- Autism
- Bereavement
- Trauma
- Gambling
- Dyslexia

Once the psychological disorders were presented, several specialised texts, namely - but not exclusively – real state-of-the-art research papers on psychological disorders taken from specialised journals, were provided to enable the students to familiarise themselves with the disorders presented and allow some context for the new lexis. Three different steps were designed to examine and measure students' vocabulary acquisition process with the use of computers and mobile phones in the classroom: (1) a pre-task on *Wordclouds* (Zygomatic, 2009) to activate students' schemata and background knowledge, (2) a reading task and identification of specific vocabulary related to the allotted disorder, and (3) a post-task on *Wordclouds* (Zygomatic, 2009) to not only assess but also compare previous knowledge and acquired vocabulary. The activities were created to enhance, compare, and test learners' vocabulary acquisition and develop their word-association skills.

2.3 Procedure

To carry out these activities with *Wordclouds (*Zygomatic, 2009), students were asked to bring their laptops and mobile phones to class to develop the sessions and work online and collaboratively in groups. The students preferred this option to students' individual work in the computer lab due to computer lab distribution, that is, computer lab distribution of isolated computers does not allow easy group work and one of the aims of this study was to work collaboratively with their peers. Moreover, we wanted to show students the advantages of working with online tools for autonomous learning and extending language learning far beyond the classroom boundaries. By bringing their laptops and mobile phones, they can work on the English activities proposed anywhere.

In the first phase, the class was divided into eleven groups and allotted a different psychological pathology each to brainstorm related lexis and create a word cloud on their laptops or mobile phones. This task required active peer work and high participation from all group members. In the second phase, participants were provided with previously selected research papers and articles about the assigned disorder, texts from which students had to extract relevant lexis that defined, or related to, the mental condition they had to work on. Although authentic academic texts, these texts had been selected carefully to be intelligible and clear to students at this level. In the third phase, students had to create a glossary (i.e., term + definition) about the allotted pathology in groups. Finally, students redesigned the first word cloud in their groups, resulting in a second word cloud, including as many new word items as possible. For this task, they were given limited time, one minute, so they had to be active and quick providing words.

3. Results

This section examines and summarises findings and contributions towards the effectiveness of OERs in the ESP classroom, and more specifically, the use of *Wordclouds (*Zygomatic, 2009), for specific vocabulary acquisition and retention.

3.1 Activity 1: Pre-task

Although initially rich enough in vocabulary related to the given disorder, the first word clouds produced by students did not include a high number of keywords. Figures 2 to 5 below illustrate some of the students' initial word clouds, which include a range of 5-10 words. Results may suggest a few things. First, students were familiar with the pathologies, probably in their mother tongue. Second, they were not confident enough in English to produce dense word clouds. Third, the disparity of language level in class, as the most English proficient group produced denser and richer word clouds.
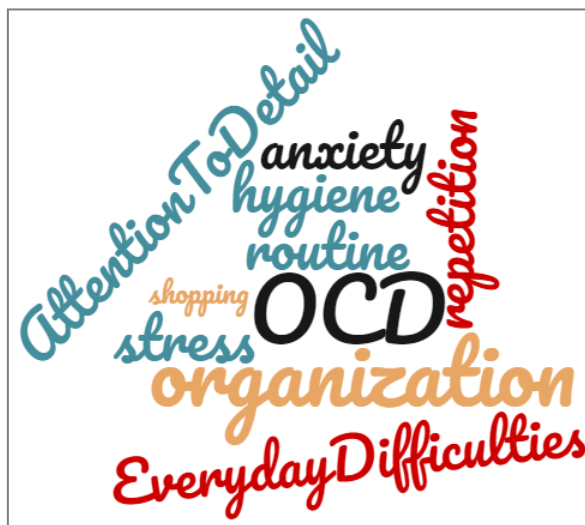

Figure 2. ADHD initial word cloud.
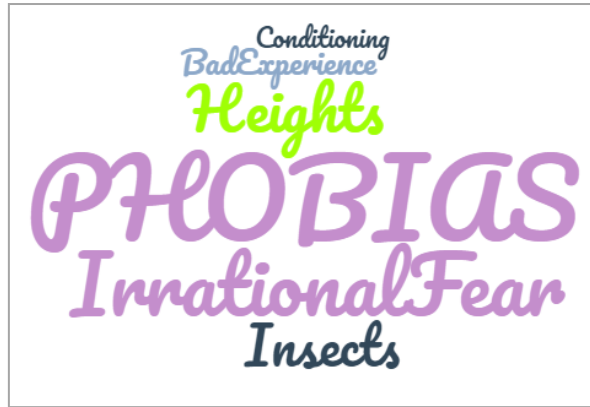

Figure 3. OCD initial word cloud.
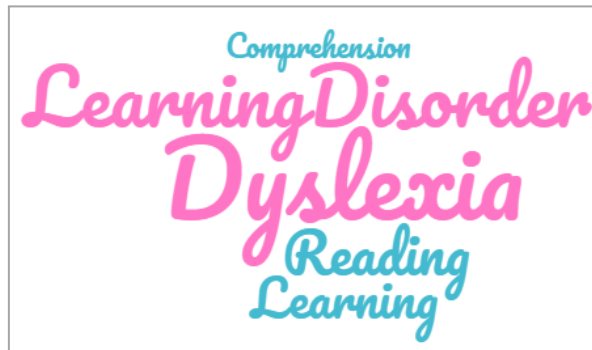
Figure 4. Phobias initial word cloud.

Figure 5. Dyslexia initial word cloud.

3.2 Activity 3: Post-task

Figures 6 to 9 illustrate some of the second word clouds designed as a post-task. As can be seen, these word clouds are denser than the first ones. In the initial ones, the word clouds had an average of 6-8 words per cloud, whereas the average was considerably higher in the final ones. After reading the allotted text and creating a glossary list, the second word cloud students produced were much more representative of the disorders since these second word clouds contained an average of 18 words. For instance, Fig. 3 above and Fig. 7 below correspond to the first and second word cloud, respectively. This group worked on Obsessive Compulsive Disorder (OCD) and could devise nine words off the top of their heads at the first attempt. Nevertheless, that number was almost doubled (17 words) after analysing the text given and making the glossary.

After comparing the initial word cloud with the final one, results show that the students' vocabulary on psychology, and more specifically on psychological disorders and pathologies, had expanded, which seemed to affect their motivation and participation positively.

Figure 6. ADHD final word cloud.

Figure 7. OCD final word cloud.

Figure 8. Phobias final word cloud.

Figure 9. Dyslexia final word cloud.

A further finding was errors in the students' initial word clouds. Table 1 below shows the different types of errors committed by the participants in this study and the most common ones. The total amount of words included in the initial word clouds is 101. Not surprisingly, the most frequent errors correspond to cognates (17.8%), that is, similar terms in their L1 – either in form or in meaning. Students at this level (B1 of the CEFR) generally do control the grammatical functions and grammar of the phrases and terminology, albeit with some errors (5%) which stem from their L1.

Table 1. Common mistakes found in the initial word clouds.

Common mistakes	Frequency	Percentage	Examples
Spelling	18	17.8%	unestable*- unstable disfunctional* - dysfunctional patologic* - pathologic funtions* - functions emocional skills* - emotional skills stres* - stress hiperactivity* - hyperactivity
Grammar	5	4.9%	historial family* - family history disorders of brain* - brain disorders
Total	23	22.7%	

The analysis of the *Wordclouds* (Zygomatic, 2009) pre-task and post-task results of 11 groups led us to the identification of students' most common errors in this type of activity. Planned comparison revealed that the words included in the first word cloud had common spelling mistakes, such as those described in Table 1. Some of these spelling mistakes improved in the final word clouds and were not committed again; however, there are a few that persist such as 'hiperactivity'* ('hyperactivity') or 'aggresion'* ('aggression'), although it is clear from the results that the improvement has been notable. Some other grammar mistakes initially observed in the first word clouds also improved at the end of

the tasks proposed. Grammar errors such as sentence structure, word order or wrong phrase also improved in the final word clouds (e.g., historial family* - family history).

Our findings on the errors made by Psychology students hint that they were mainly spelling mistakes derived from the similarity of the term in their mother tongue. From the results shown in the table above, we could somehow conclude that one of the most significant difficulties students found was spelling, followed by grammar mistakes and grammatical functions. Apart from the new terminology students might find confusing and those terms similar to their L1, which have diverse meanings or different spellings. The final word clouds improved substantially, reducing spelling errors and wrong syntax order mistakes.

4. Conclusion

The current project aimed at introducing OERs in an educational setting within an ESP tertiary course. The purpose was to enhance competencies such as digital knowledge and the learning of a foreign language (English in this case) following the European education policy's requirements and guidelines (European Council, 2006). The activities proposed in this study tried to include the use of digital tools to improve the English language and promote the students' knowledge of their professional world of psychology, therefore fostering their employability.

The students participating in this study seemed to be prone to using new resources for learning in their *English for Psychology* classroom. Most of them had never used the tool *Wordclouds* (Zygomatic, 2009) before, and much less for English learning. However, this did not seem to be a handicap for the development of the sessions.

As already presented in the Results section, we could conclude that the whole process and the materials used have helped the students in their English learning process and more specifically in vocabulary retention, spelling and description of psychological disorders. When we compared the initial word cloud the students produced with the final one after the whole process, the first thing that stand sout is the number of words per word cloud, which increased substantially in the final word clouds. In the initial ones the word clouds had an average of 6-8 per cloud whereas, in the final ones, the average was considerably higher, an average of 18 to 22 words. Other differences found after comparing students' initial and final word clouds have to do with language accuracy. In the final word clouds produced by the students, the number of grammatical errors and spelling mistakes were reduced, indicating the benefits of the *Wordclouds* (Zygomatic, 2009) tool for language accuracy other than vocabulary retention.

From our observation in class, we conclude that the use of this online tool (*Wordclouds*) motivated students during the sessions. *Wordclouds (*Zygomatic, 2009) fostered collaborative work and students were active and very participative. Vocabulary acquisition sharply improved, and students understood and used psychology concepts in English in a more accurate way at the end of the sessions.

Studies such as the one presented here could be an example of how the introduction of OERs in the ESP classroom can help vocabulary retention and improve language content and competences such as digital abilities and professional skills. Further research should be addressed in order to build on the success of the tool *Wordclouds* in vocabulary retention at the tertiary education level. The current research has proven to be helpful for students for vocabulary retention in a specific topic such as psychological pathologies. Other key topics and texts in the *English for Psychology* classroom could be analysed,

such as emotions or addictions, to check whether *Wordclouds* is more genrally useful in the ESP classroom.

Appendix 1

Glossary sample and word definitions produced by students: Bereavement

- **human experience:** (the process of getting) knowledge or skill from doing, seeing, or feeling things.

- **counselling:** the job or process of listening to someone and giving that person advice about their problems

- **death:** the end of life.

- **bereavement:** a state of intense grief, as after the loss of a loved one

- **mental health:** the condition of someone's mind and whether or not they are suffering from any mental illness.

- **melancholia:** the condition of feeling unhappy or sad for no apparent reason.

- **pathologic:** relating to a condition caused by, or involving, a disease.

- **loss:** the fact that you no longer have something or have less of something.

- **panic:** a sudden strong feeling of fear that prevents reasonable thought and action.

- **relationship:** the way in which two things are connected.

- **shock:** (the emotional or physical reaction to) a sudden, unexpected, and usually unpleasant event or experience

- **yearning:** a strong feeling of wishing for something, especially something that you cannot have or get easily.

- **despair:** the feeling that there is no hope and that you can do nothing to improve a difficult or worrying situation.

- **stress:** great worry caused by a difficult situation, or something that causes this condition.

Ethical statement

The authors declare that there is no conflict of interest.

References

Aguaded Gómez, J. I. & Pozo Vicente, C. (2011). Communicative competence and the use of ICT for Foreign Language Learning within the European Student Exchange Programme ERASMUS. *European Education Research Journal,* 10 (1). https://doi.org/10.2304/eerj.2011.10.1.83

Alkahtani, S. (1999). Teaching ESL reading using computers. *The Internet TESL Journal, 5*(11). Retrieved from http://iteslj.org/Techniques/AlKahtani-ComputerReading/

Angehrn, A.A. & Maxwell, K. (2009). EagleRacing: Addressing Corporate Collaboration Challenges Through an Online Simulation Game. *Innovate Journal of Online Education, 5*(6).

Baddeley, A. (1992). Is working memory working: The fifteenth Bartlett lecture. *The Quarterly Journal of Psychology, 44*(1), 1-31. https://doi.org/10.1080/14640749208401281

Bărbuleț, G. (2013). Teaching English vocabulary through ICT's. *Journal of Linguistic Intercultural Education, 6*, 59–76. https://doi.org/10.29302/jolie.2013.6.4

Bellés-Calvera, L. & Bellés-Fortuño, B. (2018). Teaching pronunciation with OERs: The case of VOKI. *Sintagma*, 30, 57-80. https://doi.org/10.21001/sintagma.2018.30.04

Bellés-Fortuño, B. & Bellés-Calvera, L. (2017). Learning pronunciation with OERs: A practical case for Medicine students. *3rd International Conference on Higher Education Advances, HEAd'17,* València: Universitat Politècnica de València, 1255-1262. https://doi.org/10.4995/HEAD17.2017.5571

Candlin, C.N. (1986). Explaining Communicative Competence Limits of Testability, in A. Carrasco, E. Gracia & C. De la Iglesia (2005) *Las TIC en la construcción del espacio europeo de educación.* Revista Iberoamericana de Educación, 31.

Conole, G. & Alevizou P. (2010). *A literature review of the use of Web 2.0 tools in Higher Education*. York, UK: HEA Academy.

European Council (2006). Recommendation of the European Parliament and the Council of 18 December 2006 on Key Competencies for Lifelong Learning, *Official Journal of the European Union*, 30 December, L 394/10-18.

Evans, J.R. & Cuffe, T. (2009). Near-peer teaching in anatomy: an approach for deeper learning. *Anatomical Sciences Education, 2*(5), https://doi.org/10.1002/ase.110

Krajka, J. (2000). Using the Internet in ESL writing instruction. *The Internet TESL Journal,* 4 (11). Retrieved from http://iteslj.org/Techniques/Krajka-WritingUsingNet.html

Kwiek, M. (2009). The Changing Attractiveness of European Higher Education in the Next Decade: current developments, future challenges and major policy issues, *European Education Research Journal, 8*(2), 218-235. http://dx.doi.org/10.2304/eerj.2009.8.2.218

Lee, S. T. (2008). *Teaching pronunciation of English using computer assisted learning software: An action research study in an institute of technology in Taiwan*. [Doctoral dissertation]. Australian Catholic University, Australia. Retrieved from https://researchbank.acu.edu.au/theses/240

Mayes, T. & Freitas, S. (2004). *Stage 2: Review of e-learning theories frameworks (JISC E-learning Models Desk Study and models),* London, UK.

Miley, F. & Read, A. (2011). Using word clouds to develop proactive learners. *Journal of Scholarship of Teaching and Learning, 11*(2), 91-110.

Wenk, B. (2010). Open educational resources (OER) inspire teaching and learning: In IEEE EDUCON, Education Engineering 2010- *The future of global learning engineering education*, Madrid, 435-442. https://doi.org/10.1109/EDUCON.2010.5492545

Widdowson, H.G. (1983). *Learning Purpose and Language Use.* Oxford: Oxford University Press.

Young, S. C. C. & Wang, Y. H. (2014). The game embedded CALL system to facilitate English vocabulary acquisition and pronunciation. *Educational Technology & Society, 17*(3), 239–251.

Zygomatic*, (2003). *Wordclouds.* [web]. Available at https://www.wordclouds.com/