ENGLISH IN THE HEALTHCARE SETTING: THE USE OF WORDCLOUD AND QUIZLET WITH PSYCHOLOGICAL PATHOLOGIES

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Abstract

Several studies have revealed that computer applications offer a wide potential for teaching and learning and that Open Educational Resources (OERs) can be especially beneficial to generate innovative abilities in the classroom related to new means of communication and collaboration [1]. As regards the teaching of foreign languages, OERs have been acknowledged to be a useful tool for vocabulary acquisition [2], for enhancing text reading [3], for writing [4], and for improving pronunciation [5]. Computer-assisted language learning (CALL) programs as a means of learning-by-playing in the classroom have also proven to facilitate the acquisition of English vocabulary and pronunciation through games [6].

In this line, 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 its use broadly [7], [8].

The aim of this study is to use on-line tools such as Wordcloud [9] and Quizlet [10] in the English for Psychology classroom at university to improve vocabulary retention and the overall learning of English in a specific area such as Psychology. Within the English for Psychology module there is a topic devoted to psychological disorders. The students enrolled in this module have to be able to learn, know, use and talk about different psychological disorders in English. Thus, students are provided with a list of texts that include disorders such as ADHD (Attention Deficit/Hyperactivity Disorder), phobias, dementia, hoarding, OCD (Obsessive Compulsive Disorder) or autism among others. By means of using Wordcloud [9] as a pre-task activity, without giving any content feedback to the students, and also as post-tasks, we have observed that vocabulary retention has been positive. Quizlet [10] has been used to help students get familiar, internalize and evaluate their language comprehension of the different disorders.

Preliminary results have shown that the exploitation of students’ background knowledge through Wordcloud [9] has definitely aided vocabulary retention. The use of Quizlet [10] during the learning process and later to evaluate and assess the students has been widely accepted in the classroom; the students showed to be motivated with the learning process.

Keywords: English for Health Sciences, OERs, Wordcloud, Quizlet, psychological disorders.

1 INTRODUCTION

Several studies have revealed that computer applications offer a wide potential for teaching and learning and that Open Educational Resources (OERs) can be especially beneficial to generate innovative abilities in the classroom related to new means of communication and collaboration [1]. When we apply the use of OERs in the language classroom, some authors have stated that the use of on-line tools benefit teachers since they can reduce the time needed to prepare classes [11] and at the same time a more learner-centred approach is used, reducing teachers’ isolation and giving the opportunity to generate more dialogic activities [12] which enhance a communicative environment. The myriad of OERs 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 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 many beneficial learning and teaching characteristics for the university classroom, since their free and easy access have undoubtedly the potential of becoming universal and available to the whole learning and teaching community. However, some authors have noted the risks of OERs as regards social
exclusion. Not all members of the educational community accept the use of new technologies as the only tools for the teaching and learning process [7].

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, in fact, full attention minimizes gradually after the first 20 minutes. The use of OERs involves students in their own learning process and makes it more dynamic, generating a more productive space for a successful learning process.

In this paper we will mainly focus on the use of Quizlet [10] and Wordcloud [9] in the English for psychology classroom with the aim of aiding vocabulary retention and enhancing general specific language acquisition. Given the multimodal characteristics of Wordcloud [9], students can visually retain vocabulary mental maps to better internalize specific words within the field of study as well as identifying patterns of spelling. In the case of Quizlet [10], the tool is a good option when reinforcing the concepts introduced in class and helping students learn patterns of language for definition. A final step in this study included the use of Socrative [13] as a tool for formative assessment where students are motivated through competition among peers to complete a test.

2 METHOD

2.1 Participants

The subjects of the study were 31 first-year undergraduate Psychology students enrolled in the English for Psychologists module, in which English is taught as a foreign language. Within this educational setting, students are exposed to a number of specialised texts, both written and spoken, which are key to developing their four skills successfully. The examined group was exposed to three OERs - particularly Quizlet [10], Wordcloud [9], and Socrative [13] - to boost vocabulary acquisition given that part of the final grade was devoted to glossary-making and specific vocabulary testing.

2.2 Materials

It is obvious that laptops and/or mobile phones were required for the development of this session, therefore students were asked beforehand to attend the lesson with them. 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 other mates about the different disorders. The disorders presented in class were:

1 ADHD (Attention Deficit and Hyperactivity Disorder)
2 Phobias
3 Dementia
4 Hoarding
5 OCD (Obsessive Compulsive Disorder)
6 Self-harm
7 Autism
8 Bereavement
9 Trauma
10 Gambling
11 Dyslexia

Once the psychological disorders presented, several specialised texts, namely - but not exclusively - research papers on psychological disorders were provided in order to familiarise students with the disorders presented. Therewith, 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 Wordcloud [9] to activate students' schemata and background knowledge, (2) vocabulary memorisation on Quizlet [10] along with formative assessment on Socrative [13], and (3) a post-task on Wordcloud [9] so as to not only assess, but also compare previous knowledge and acquired vocabulary.
These steps were created to be fulfilled with the help of three OERs: two of them used for vocabulary learning in the classroom, Wordcloud [9] and Quizlet [10], and a third tool which focuses on formative assessment that helps to assess learning and progress: Socrative [13].

The activities were created to be fulfilled with these three OERs thereby enhancing and testing the learners’ vocabulary acquisition.

2.3 Procedure

In order to carry out these activities with OERs, students were asked to bring their laptops and mobile phones to class for this session, so as to work online and collaboratively in their groups.

To begin with, the class was divided into eleven groups and assigned a different psychological pathology each to brainstorm related lexis and create a word cloud on their laptops. Secondly, participants were provided with research papers and articles which delved into the assigned disorder, texts from which students had to extract relevant lexis that defined, or was connected with, the mental condition they had to work on. Thirdly, students were asked to create a glossary (i.e. term + definition) about their disorder in groups, which the researchers would upload to Quizlet [10] for them to play all the vocabulary games at their disposal, but especially ‘Match’, ‘Spell’, ‘Learn’ and ‘Write’, following this particular order.

- **Match**: students needed to match the term to the definition by dragging the boxes. The aim of playing this game first was to familiarize the students with the definitions.

![](image1)

*Figure 1. 'Match': drag the boxes together*

- **Spell**: it consists of seven rounds in which the student is given the definition of the term and a voice generator reads out the term for the student to type them in. Once students were familiar with the written term and the definition, it was paramount that pronunciation took second place since Spanish students tend to fossilize mispronunciation of words that are similar in their mother tongue, i.e. words of Latin origin, especially common in academic and scientific texts.

![](image2)

*Figure 2. 'Spell' activity and progress*

- **Learn**: This activity consists in three rounds. On the first, a multiple-choice test in which the student is shown a flashcard containing one of the definitions is automatically created, and four terms are presented, but only one matches the definition. Were the students to answer incorrectly to the question, they would be encouraged to continue studying that term.
On the second round, the student can encounter two types of questions: multiple-choice or short-answer questions (i.e. type in the term) depending on their performance. However, on the third round, to show the student has mastered the term, Quizlet [10] will only create short-answer questions. This activity was considered to be appropriate as a third step for this task due to the different question type possibilities. First, participants had the different options to help them remember the right one (i.e. multiple-choice type), and that extra help starts vanishing on the second round to finally come across short-answer questions, which paces the learning process.

- **Write**: definitions are turned into questions to which the student should type the right term. Due to the lack of extra help in this type of activity, it was considered to be suitable as a final task seeing that it reveals the progress and acquired knowledge of the new lexis in a more objective and formal way.
Having reached completion of all the Quizlet [10] activities assigned, data was collected from their performance. Fourthly, in class, a new grouping method was established: the class was divided in two groups, thus having members from all the former groups in both new groups. Students were now ready to take a collective test-race on their phones or laptops using Socrative [13]. Once the race on Socrative [13] was over, all students returned to their original groups and designed a new word cloud on their laptops.

3 RESULTS

In this section, the results obtained from the students’ performance on Quizlet [10] as well as students’ final word clouds are discussed. Thus, a classification of students’ common errors and how effective OERs are for vocabulary acquisition are examined.

3.1 Activity 1

The first word cloud design of all groups brought to light the lack of vocabulary related to their discipline, Psychology, many students presented, since they were able to produce an average of eight words in each group.
3.2 Activity 2

Activity 2 consisted in generating a list of useful words according to each psychological disorder, that is, ADHD, phobias, dementia, etc. (see section 2.2 Materials). The students produced useful lists of words related to the different disorders with the help of text analysis, 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 with Quizlet [10] (see Appendix 2 for Bereavement glossary sample).

The analysis of the Quizlet [10] and Socrative [13] results of 31 participants led us to the identification of students’ most common errors. The errors made by Psychology students were mainly confusing terminology and spelling mistakes derived from the similarity of the term in their mother tongue. From these results, it can be concluded that the greatest difficulty, apart from the new and similar terminology students might find confusing, which is part of the first stages of the learning and acquisition process, lies on spelling followed by grammar and form of the term.

Table 1 below shows the most common errors committed by the participants of this study. Not surprisingly, the most frequently-made error types correspond to confusing new terminology (61%), 17% of which is similar terminology – either in form or in meaning; followed by spelling (30%). Along this line, students at this level (B1 of the CEFR) do control the form and grammar of the phrases and terminology, albeit with some errors (5%) which stem from Spanish and/or Catalan, their first language.

<table>
<thead>
<tr>
<th>Common mistakes</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Examples</th>
</tr>
</thead>
</table>
| Spelling        | 18        | 30%        | unstable*-unstable  
dysfunctional* - dysfunctional  
pathologic* - pathologic  
functions* - functions  
emocional skills* - emotional skills  
stres* - stress  
hiperactivity* - hyperactivity |
| Terminology     | 37        | 61%        | compulsions*- tic  
obssesion* - distress  
mental illness*- mental pain  
avoidant anxiety*- avoidant disorder |
3.3 Activity 3

Participants were now ready to show the knowledge they had acquired by designing a new word cloud. Results show their expanded vocabulary on the field of Psychology, and more specifically on psychological disorders and pathologies, which resulted in higher motivation among participants.

Figure 9. ADHD word cloud 2

Figure 10. OCD word cloud 2
4 CONCLUSIONS

The current project aimed at introducing OERs in the educational setting within an ESP course. The students seemed to be prone to the use of other resources for the learning in their English for Psychology classroom. Most of them had never used the tools Wordcloud [9], Quizlet [10] and Socrative [13] before, and much less for the learning of English.

As seen in the results, we could conclude that the whole process and the materials used have really helped the students in their English learning process and more specifically in vocabulary retention, spelling and psychological disorder description. When we compared the initial word cloud the students produced with the final one after the whole process, the first thing that outstands 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 the final ones the average was from 18 to 22 words.

Another learning improvement has to do with spelling, the words included in the first word cloud had regular spelling mistakes such as the ones 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 still persist such as ‘hiperactivity’* (‘hyperactivity’) or ‘aggresion’* (‘aggression’), although the improvement has been notable.

From our observation in class we could conclude that the use of these on-line tools motivated students during the sessions. The use of Socrative [13] especially fostered competitiveness, while in the ‘race’ with Socrative [13] they showed active and very participative, the vast majority had studied the vocabulary seen in Quizlet [10] before attending the session in order to compete with their mates and therefore improved gaining vocabulary and being able to understand and use Psychology concepts in English.

REFERENCES

APPENDIX 1: GLOSSARY SAMPLE AND WORD DEFINITIONS PRODUCED BY STUDENTS

8. 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 obvious 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.