The use of escape rooms to teach and learn English at university

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Introduction

In the last few years, many Spanish university students have worked very hard in order to reach an acceptable level of English as prescribed by the Common European Framework of reference for Languages (CEFRL, Council of Europe, 2001). Some of them are unsuccessful and demotivated since traditional methodologies of English teaching seem not to fit their necessities. They spend many years learning grammar rules out of context and they do not feel confident enough to speak fluently.

In this respect, many researchers in the field agree that innovation in language learning should be paramount in order to create successful learning environments. Thus, educators should accept the challenge to spark innovation within the classroom and be open to explore and experiment with those new teaching and learning spaces (Merchán, 2017).

Therefore, the present chapter intends to create authentic and motivating learning experiences among university students introducing a trending game called 'escape room' in the English classroom. This innovative methodology of learning integrates the four skills of language in a context (reading, listening, speaking and writing). Moreover, the combination of content and game may help motivate students in their learning process (Figueroa, 2015).

Escape rooms have become very popular in the last few years. They are thematic games where participants should solve out a series of clues or problems to 'escape from the room' where they are trapped in a given time limit. Participants should work cooperatively and hand in hand to win or lose, but always as a team. Unlike computer games, 'live-action games bring the players into face-to-face contact' (Nicholson, 2018, p.45), which could be an ideal breeding ground for language learning.

The use of escape rooms as a pedagogical tool is a relatively new phenomenon and educators have tested their virtues in different areas of knowledge such as physics, maths, biology, nursing, (Kinio *et al.*, 2018; Zhang *et al.*, 2018; Clarke *et al.*, 2017). It is generally assumed that this kind of educational game may involve learners in active learning since it helps students to retain and apply the knowledge they have learned in a game. Moreover, it can inspire learners to self-regulate their learning process, help them reflect upon how the learning connects to their own lives, and develop their intrinsic motivation.

The aim of this study is to use an escape room not only as a tool to teach and learn English as a foreign language at university. Rather than have students play an escape game, it can be more engaging if they have to create the game. Students can create an escape room about course content, and then watch as their classmates work through the challenges they have designed. Thus, there is a combination of game creation with the discipline of understanding course content deeply enough to create challenges about it. In that way, both productive (speaking and writing) and receptive language skills (listening and reading) could be worked at the same time.

As participants in this experiment were pre-service teachers, creating an escape room about the content that should be taught and learnt was twofold. On the one hand, it provides them with the opportunity of learning English concepts deeply (linguistic dimension) and on their own (self-regulation); and on the other hand, they also create material and resources in order to teach English (educational dimension) through challenges (motivation).

Method

Participants

Ninety-five male and female university students (aged 18-20) participated in the experiment. They belonged to two intact groups from a big pre-service teachers' faculty, and were enrolled in English for Teachers subjects. Their English proficiency level ranged from C2 to A2, according to the CEFRL (Council of Europe, 2001), and it was distributed differently in each group. Thus, Levels of English in Group 1 were: C2: 6%; C1: 6%; B2: 44%; and B1: 44%. In Group 2: C1: 1%; B2: 11%; B1: 30%; A2: 58%. Then, as students in Group 1 had higher levels of English proficiency, it was decided that they would design the story and the clues to be solved out for the escape room. Conversely, students in Group 2 would participate solving out the challenges to escape from the classroom.

Materials and resources

The story and the clues

Eight clues were designed around a story, which was about the murder of a doctor. Then, students in Group 1 were distributed in 9 groups of work: one group worked out the story and the rest invented eight clues around it.

The story dealt with a doctor who had discovered a medical treatment which can remedy cancer. The doctor's employees knew the secret and made a plot to steal it ad sell it. One of these characters betrayed the rest and murdered the doctor. Then, the story has got ten characters: the housekeeper, the gardener, the cook, the horse keeper, the driver, the steward, the doctor's sister, the doctor's assistant, the doctor's spirit and the police officers. These characters were played by students in each scene where a clue was placed. They would help participants solve out the challenges.

Clues worked on several language skills at the same time (speaking, listening, writing and reading) and were integrated in the context of the story. They were organized in such a way that students could play the game solving out the clues in a circular way. Therefore, it was not necessary to start the game in clue number 1. The aim was to find out who had murdered the doctor by solving out the clues in any order. It was thought that way to help classroom management of Group 2 since all the students would be engaged in solving one of the clues at the same time and they would not have to wait for a group to finish. Clues (see Table 1) included activities such as solving out a puzzle, following instructions in a map, filling the gaps to find a magic word, recipes for cooking, correcting mistakes in sentences, reading comprehension, etc.

Table 1. Example of Clue 3					
Clue 3. Choose a word to fill in the gaps and find the MAGIC WORD. Here are some options. Choose the correct one.					
WORD OPTIONS: disposition, abc, poor, live, finding, guilty, sensitive, difficult, searching, known, fail, acquisition, innocent, October, help, imagination, badly, unknown, harmful, afraid, attack, cure, witness, hero, stolen, goal, sympathetic, September, sure, reasons, exhausted, found, police, search, hard, appeared, rich, nice, are, killing, footprint, January, clue, argument works, defend, assassin, murdered, victim, steal, consequence, happy, clearness, house, living, watching, television, strength, achieve					
Last 31st an important doctor was by someone who is still The police are working really to find out the In order to it, they are questioning everyone who in the doctor's house. It is said that the doctor discovered the for cancer, so he has been murdered to the secret, sell it and become So far, all the employees in the house have their several not to be considered guilty. However, the police are that the murderer is one of employees in the					
Once you have completed the text, link in order the first letters of those words. After linking them, you will have a magic word of four letters. Translate it into a code of numbers. This code will allow you to open the box. Here you have some help:					
U	1		Ñ	9	
Α	2		L	4	Write here the MAGIC WORD:
В	4		K	3	Translate it into numbers:
F	3		1	2	
R	5		0	1	NOW, DO YOU KNOW THE COMBINATION TO OPEN THE BOX?
D	6		Р	0	
E	8		Q	7	
W	7		Н	0	

Questionnaires

After the experiment, students filled in an open questionnaire (provided by the teacher) about their experience learning and teaching English through an escape room. Participants' answers were coded for analysis. Questions included information such as: what was your experience teaching/learning through an escape room?; do you consider an escape room could be a good tool for teachers? As a future teacher, would you implement it?; what kind of skills can be worked teaching/learning through an escape room?; Pros and cons using escape rooms to teach; What kind of language skills can be worked?; Subjects/content you would teach using an escape room, etc.

Procedure

A month was needed by Group 1 to write the story, the clues, and prepare the setting. It was devoted some time of the regular lessons to guide students in this elaboration. Students worked cooperatively and they were connected via Google Drive so that everybody could have access to the story and the clues. The teacher help them with the linguistic aspects.

Students of Group 2 were asked to participate voluntarily in an escape room in English. Only a few of them knew what an escape room was. Their worries were about their English proficiency level, which they considered was not good enough to take part in the activity. They were encouraged to participate regardless their level of English. As they were informed that other students had designed the activity for them, they felt more comfortable. After the teacher's explanation and resolution of doubts, all of them agreed to participate.

A session of 90 min was needed to put into practice the escape room. In order to organise students in Group 2, they were split into 8 groups. In that way, each group would start solving out one of the eight challenges. As mentioned before, the escape room structure was circular, so they could start in one of the eight clues at random order.

The whole group of participants in the escape room was summoned and the detective of the story explained the rules to participate and told them the story of the murder of the doctor. They were told that they should speak in English all the time.

Eight guides from Group 1 split participants from Group 2 into 8 groups and they lead them to a different scene where they could find a clue. In each scene, an actor/ actress related to the challenge was awaiting to help them. They were dressed like the character they performed, so the context seemed more real.

Different places from the faculty were also needed to place the challenges: the classroom, the corridor, the stairway and the hall. The group who solved out the mystery (who had murdered the doctor) would win the game and should summon in the hall as soon as possible. The detective would wait for them there.

After one-day delay, another session of 20 min was needed for students to complete the questionnaire on their experience participating in the escape room. They wrote down their answers on their own.

Results and discussion

Both groups of participants were very motivated during the performance. Group 1 felt that they had contributed to their partners' learning process and Group 2 liked the experience of learning English in a different way. In fact, data coded from the questionnaires revealed that all the students of the sample valued their experience either teaching or learning through an escape room very positively and they thought it was a good tool to develop their teaching skills. Particularly, Figure 1 shows students' answers regarding the skills they think a teacher could develop through an escape room.

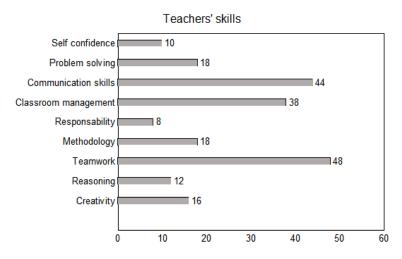


Figure 1. Students' amount of answers coded from the item 'Teachers' skills worked through an escape room' (N=212)

As it is portrayed, the three most important skills students think a teacher could develop through an escape room were teamwork (23%), communication skills (21%) and classroom management (18%). In addition, when they were asked whether they would use an escape rooms as a potential teaching tool in the future, all of them claimed they would.

In fact, 91% of participants in Group 1 thought that students in Group 2 have learnt English while taking part in the escape room they have prepared for them. On the other hand, 100% of students in Group 2 (participants) thought they have learnt English participating in the escape room.

Students were also asked about the advantages and disadvantages of using the escape room as a tool or resource for teaching. Figure 2 shows the answers of the designers of the escape room (participants in Group 1).

As students' answers revealed, they considered that using the escape room as a class resource has more advantages (N=69) than disadvantages (N=46). The most common cons listed by students were class management (32%) and time (30%). As they were first year students, it was still difficult for them to organise people in groups and give clear and effective instructions. Nevertheless, they all agreed that this was a good training activity for future teachers. They also reported that this activity was time consuming.

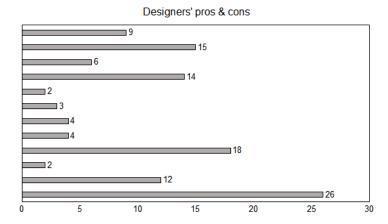


Figure 2. Escape room designers' amount of answers coded from the item 'Advantage/Disadvantages of using an escape room as a teaching resource' (N=115)

Conversely, students highlighted that using an escape room to teach was very innovative, motivating and funny (38%). They said that they had observed that students learnt while they were having a good time and this was very rewarding for them and made them feel more self-confident as future teachers. Furthermore, they also agreed (26%) that students had learnt English (mainly communicative skills) while they participated in the escape room and it fostered teamwork and socialization (17%).

On the other hand, participants in Group 2 also mentioned more advantages (N=94) than disadvantages (N=65) of using an escape room as a teaching resource as it is shown in Figure 3. Students in Group 2 also agreed that one of the disadvantages of this activity was that it was time consuming (35%) for a teacher. Also, they mentioned (20%) that some students' low level of English could be a handicap to solve out the clues. This problem was solved out both by placing actors/actresses in each scene to help participants solving out the challenges, and by grouping students with different levels of English so that they had to work cooperatively. As students in Group 1, they also considered that it would be difficult for them to control the class organization (17%).

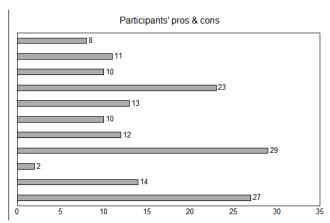


Figure 3. Escape room participants' amount of answers coded from the item 'Advantage/Disadvantages of using an escape room as a teaching resource' (N=159)

On the other hand, and curiously enough, they reported that it was a good resource for learning English (31%) because there was a need to use the language in order to interact with students and to solve out the clues in each scene. They also mentioned that language usage was more real and contextualized, and it fostered communicative skills (15%). That was one of the reasons they felt very motivated (29%) when they participated in the escape room. In fact, some of them reported that unlike a classroom context, they had felt very comfortable using English in the escape room scenes and with other partners.

Particularly, when they were asked about what kind of English language skills they thought that could be worked through an escape room, 67% of students highlighted oral skills (speaking and listening) above the others (33%), as it is shown in Figure 4.

Moreover, students who designed the escape room expressed their motivation to see how they had taught English to students similar to them (first year students). It was very rewarding for them to have been seen as models of teachers by their partners. On the other hand, students who participated in the escape room were satisfied with the fact that they had practised oral skills without feeling stressed and they felt they had learnt from their partners.

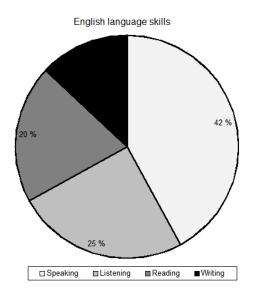


Figure 4. Percentage of students' answers (Group 1 and 2) regarding the item English language skills that could be worked through an escape room (N= 95)

Finally, students were asked about what sort of content or subjects could be taught using an escape room. All of them agreed that teachers could use an escape room to teach any subject or content. Particularly, some of the examples that they wrote in their answers were languages, maths, science, history, and biology.

Conclusions

Results showed that students considered the escape room as a good tool for learning and teaching English, since it fostered motivation, teamwork and communicative competence mainly. Moreover, they thought it was a good way to learn English because language skills were practised in an integrated and contextualized way.

In line with other studies (Clarke *et al.*, 2017; Figueroa, 2015), gamification of the learning process is very beneficial since students are engaged in active learning almost without realizing. Data from the questionnaires revealed that as students were motivated and having a good time, the stress they felt when they had to use the English language in the classroom was softened.

It seemed that preparing an escape room from scratch is very time consuming, but once it is designed, the setup could be used several times with other groups of students. Also, participants thought classroom management may be hard even though they agreed that it was a good way for training them as future teachers.

Although further research is needed to prove its benefits more systematically, designing and performing an escape room seemed to be an excellent and innovative way for learning and teaching English at university.

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9. The use of escape rooms to teach and learn English at university
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