

The relationship between the self-perception of foreign languages teachers with respect to game-playing and their gamified learning activities

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Abstract—Gamification in Foreign Language Learning is conceived as a new tool to establish activities in a non-traditional way. For this reason, teachers and teachers' training are trying to implement gamification parameters to develop new materials. However, teachers, as player, can be influenced by the way they play to know how to manage a game. In this vein, this article is focused on the possible relationships between the self-perception of foreign language teachers and with respect to how they gamify learning activities. The analysis shows that, although teachers are considered themselves as gamers, they don't use all the game resources available on their disposition.

Keywords—gamification; foreign language teaching; design of materials; players; teachers' beliefs

I. INTRODUCTION

This paper is part of a project entitled “Gamification of foreign language teaching to adults: a design-based study” (EDU2015-67680R), which focuses on studying the effects of gamification on processes related to the teaching-learning of foreign languages in adults at private and public language schools in Spain. To carry out the study, we designed a blended-learning training course for teachers (Gamelex) that was aimed at introducing them to the use of gamified learning activities [1]. Our objective was to collect data on the impact of such activities on teaching processes.

The analysis we will carry out in this study is based on observing the gamified learning activities that a group of foreign language teachers developed after completing a training course on gamification. At the end of the course, participants were asked to plan a gamified learning activity. Some gamified a single class session for a course they were teaching; others, for example, developed a teaching plan to be carried out over several sessions.

II. GAMIFICATION AND DESIGN OF TEACHING MATERIALS

In the teaching of foreign languages, gamification is a tool that can be used to create a variety of materials, courses and learning experiences. For foreign language teachers used to creating materials that go beyond the textbook, gamification is

an opportunity to produce different, innovative materials that facilitate teaching-learning of the language being studied.

Producing gamified teaching materials means designing learning activities that incorporate elements typically associated with games. However, if the materials can be identified with a specific game, the learning activity should be regarded as a serious game rather than a gamified activity [2]. This point is a significant one, especially in view of the tradition of using games as an educational element in general [3] and in the teaching-learning of foreign languages in particular [4] [5].

In the literature on gamification, a series of elements derived from games have been identified to characterise all gamified activities. Werbach and Hunter [6] classify them as dynamics, mechanics and components – groups of elements that are hierarchically related, from the most abstract to the most concrete. Of these elements, the ones most clearly related to teaching materials are components. These are the concrete elements used to play a game or carry out a gamified activity. Although it is not necessary to incorporate all the components of games in a gamified learning activity, teachers should bear in mind that the activity may be characterised in one way or another according to the choice of components.

To assess different approaches, Marczewski [7] distinguishes between two types of gamification: thin-layer gamification and deep-level gamification. According to the components involved, a gamified activity may be classified as one type or the other. Learning activities that use only elements such as points, badges, leaderboards and progress bars are considered thin-layer gamified activities because they do not make extensive use of the resources associated with games and, as a result, are not as game-like as activities based on the deep-level approach. In contrast, learning activities that involve deep-level gamification make greater use of the mechanics, dynamics and components associated with games and connect these elements in various ways [8]. The additional

elements that come into play include the freedom to fail, rapid feedback, progression and storytelling [9], among others.

The distinction proposed by Marczewski corresponds directly with the parameters based on which we can understand narrative in the context of gamification. For Janae, while thin-layer gamification is a valid option, “if we are to develop gamification to its highest quality we must examine elements of gamification beyond systems like badges, points and leaderboards” [10]. The incorporation of a narrative, for example, makes a gamified activity more complex, and more motivating and engaging for students [11] [12] [13]. Activities may appeal more to learners if they draw them into a specific storyline. According to Janae, “The permeation of narrative in so many successful engagement methods and success of strong storylines in games built for entertainment may indicate that this is the element of gamification instructions in both traditional and e-learning settings should turn their attention to” [14]. However, according to Lister [15], thin-layer gamified activities are the most common.

Narrative is thus a key element for teachers to focus on if their goal is to develop deeply gamified teaching materials. An awareness of this deeper approach can be acquired through specific training, and some teachers may have a better understanding of what it involves based on their own experience as players. The aim of this study is to determine whether this is indeed the case.

III. AIMS

This study focuses on comparing the approach to gamification taken by foreign language teachers who like playing games and often do so in their free time to that of teachers who say they play only occasionally or do not usually play themselves. In other words, our aim is to determine to what extent teachers who consider themselves regular players use learning activities that match the description of deep-level gamification, or, conversely, if the activities they develop and use exemplify thin-layer gamification.

IV. METHOD

As an initial activity, 34 teachers who participated in a teacher training course on gamification in the teaching of second languages completed an online questionnaire in which they were asked to characterise themselves in relation to game-playing, both in their personal lives and in the classroom. The questionnaire consisted of eight questions intended to obtain as clear a picture as possible of their thinking about games. In this paper, we will focus only on questions 1 and 3, which provide information on each teacher’s relationship to and attitude towards games.

As mentioned above, at the end of the training course participating teachers prepared a learning activity for their classes based on all the information they had been provided with. In this paper, we will analyse these activities in relation to the player types we identified based on the participants’ responses to the initial questionnaire. Analysing these two

elements will allow us to determine if there is a relationship between interest in games and development of deeply gamified practical experiences.

In the following analysis, we will describe the results of the questionnaire on the teachers’ playing habits and then analyse the gamified learning activities they developed in relation to their profiles as players.

V. RESULTS

Although the respondents generally indicated that they play games with a certain regularity, the results of the questionnaire reveal quite different profiles. For example, in response to the question in which they are asked whether they like to play games and how they define themselves in relation to game-playing, 67.6% said they loved playing, and 26.5% said they did not have much experience playing games but were curious about them. In response to the same question, 5.9% of the teachers answered that they were not interested in games. Overall, the responses suggest that teachers who enrol in a course on gamification tend to enjoy playing games and engage in this activity in their free time. This may indicate a certain predisposition to play games on the part of these teachers. Consequently, they may have a relatively good understanding of how games work and the elements they are based on.

In response to the question about their game-playing habits, 20.6% of the teachers agreed that they often play games with friends or family in their free time. However, 61.8% chose the response “I wouldn’t put it that strongly” (i.e. they are not keen game players). Six respondents (17.6%) indicated that they never play games. Thus, most of the teachers who enrolled in the course spend at least part of their free time playing games, though many are occasional rather than regular players.

Question 1: Which of the following statements best describes your attitude towards game-playing?		
<i>Answer</i>	<i>Number</i>	<i>%</i>
<i>1. I love playing games.</i>	23	67.6
<i>2. I don't have much experience playing games.</i>	9	26.5
<i>3. I'm not very interested in games.</i>	2	5.9

Fig. 1. Responses to question 1.

Question 3: I love playing games and often play with my friends and family at the weekend and when I'm on holiday.		
<i>Answer</i>	<i>Number</i>	<i>%</i>
<i>1. Yes</i>	7	20.6
<i>2. I wouldn't put it that strongly.</i>	21	61.8
<i>3. No</i>	6	17.6

Fig. 2. Responses to question 3.

VI. DISCUSSION

The participants' responses to the questions above indicate that despite having enrolled in a course on gamification in foreign language teaching, not all the teachers can be characterised as game players. For many, this activity is not a particularly important part of their lives. Most of the participants, however, do consider themselves game players and play often. They are therefore likely to be familiar with the way games work and have a certain amount of experience with game-playing. Based on their responses, we can deduce that they have some degree of understanding of game dynamics and the key components of this activity.

Having characterised the participating foreign language teachers as game players and in terms of their playing habits, we can now analyse the gamified learning activities they developed as an end-of-course exercise.

The gamified learning activities the teachers proposed for their classes made extensive use of points, leaderboards and badges. All 19¹ activities included these elements. In 14 of the 19 activities, the teachers indicated that a narrative was established; however, only three offered any real storyline. In most cases, the narrative did little more than provide a context or framework for the game. This was because many of the gamified learning activities took the form of contests. Eight of the 19 activities involved question-and-answer games. These activities did not involve the use of avatars, so they precluded the possibility of establishing a framing narrative in which the students would carry out their actions. However, the three gamified activities with a narrative storyline did involve the use of avatars, as well as elements associated with thin-layer gamification, elements of surprise over a sequence of stages, or clues that allowed players to achieve certain goals and move on in the story.

Thus, a large majority of the proposed learning activities establish narratives in which students will not feel involved. As a result, neither will they feel a strong sense of engagement. Thus, the learning activities proposed by the teachers who participated in the course do not generally incorporate the defining elements of deep-level gamification. It is also important to note that the proposed activities did not involve the use of avatars, which might make students feel more engaged in the gamified activity.

It is instructive to consider these results in relation to the teachers' responses to the questions about their interest in games and their playing habits. In response to question 1, 23 teachers indicated that they loved playing games. But in response to question 3, only seven of these teachers said they often played games in their free time. In response to the question about whether they spent their free time playing games with friends and family, the three teachers who later proposed learning activities involving elements of deep-level gamification indicated that they never did so.

¹ Not all the course participants handed in the final activity, and some decided to do the final exercise in groups (six teachers decided to work in groups of three), so a total of 23 participants handed in the final exercise.

The results of this study are in accord with the findings of previous studies [16] in which it has been observed that the thin-layer approach is far more common in gamified activities developed by teachers. Foreign language teachers do not appear to be any more likely than other instructors to develop and apply complex gamified activities.

The results presented in the previous section show that there is no correspondence between the game-playing habits of teachers, or their image of themselves as players, and the likelihood of them developing complex gamified learning activities. On the contrary, the three teachers who proposed activities involving deep-level gamification did not consider themselves regular players. This suggests that when it comes to carrying out complex gamified practices, activities that go beyond thin-layer gamification, it does not matter whether teachers are regular game players themselves. On the contrary, what appears to be more important is the ability of teachers to understand what gamification is and how game components come into play in learning activities of this kind.

In general, it has been observed that teachers apply elements of thin-layer gamification. This shows that even if they regularly play games in their free time, teachers do not have an awareness of game structures and elements that would enable them to use these ingredients in their own gamified learning activities. This may be due to certain points of confusion about the characteristics of game elements. For example, a tendency to confuse narrative and contextualisation has been observed: many teachers establish a framework for game development but do not create avatars that students can use to participate. Also, the narratives their games involve often lack a storyline and serve merely to contextualise the game.

There is also a certain confusion about the value of avatars. A large majority of gamified activities assign roles to students. As a result, there is not a deep interconnection between the narrative and student participation, and the gamified activity does not go beyond the level of a contest or specific learning activity. It has also been noted that gamified learning activities are sometimes associated with task- or project-based approaches [17], which develop in a way that comes close to narrative but is not game-like.

VII. CONCLUSION

After analysing the relationship between the responses training course participants gave on the questionnaire and their gamified learning activities, we can conclude that teachers who consider themselves game lovers, or who are regular game players, will not necessarily develop learning activities that involve deep-level gamification simply for this reason.

Achieving deep-level gamification depends not on the time teachers spend playing games or their gaming experience, but on their understanding of the complexity of producing gamified learning materials and their grasp of the significance

of each component that comes into play. In short, when it comes to developing gamified learning activities, it is more important that teachers understand the nature of the task they are undertaking than that they have a lot of first-hand experience playing games. Specific training is therefore absolutely essential.

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