



## Gamifying Language Learning

### How Gamification Can Support Learning in the Language Classroom

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#### Abstract

*Games have always played a central role in language education (Wright, Betteridge & Bucky, 2006; Reinders, 2012). More recently, however, the phenomenon of gamification has led to the development of new task formats in formal education, such as digital educational Escape Games. While research on gamification has been growing in the last decade, scientific studies on content-specific solutions that go beyond introducing software tools are scarce (Swacha, 2021). In fact, there is a research gap regarding language education and gamification. However, we argue that language learning has many commonalities with the concept of gamification and benefits greatly from its implementation. In this paper we will first look at how gamified language learning scenarios support language learning and may change learners' perceptions of making mistakes. We will then present insights in developing skill-specific digital Escape Game scenarios in university-based foreign language teacher education. Lastly, we will report on how school students (n=117) perceived learning in these digital Escape game scenarios. Results of a school student survey are ultimately used to critically evaluate the use of digital educational Escape Games in foreign language teaching.*

**Keywords:** *gamification, digital educational escape games, language learning, game development teacher training, student perceptions*

#### 1. Introduction

Within the educational sector, interest in gamification has been growing in the past decade (Swacha, 2021). In general, gamification is understood as "the use of game design elements in non-game contexts" (Deterding et al., 2011:2). For learning contexts, this means that game elements, such as avatars or reward systems, e.g. 'reaching different levels', are included in the non-game context of the classroom. While research on gamification has increased, scientific studies on content-specific solutions that go beyond introducing software tools are scarce (Swacha, 2021). This paper addresses the research gap regarding language education and the relevance of integrating such task types in foreign language teacher training.

#### 2. Language Learning and Gamification

Language learning has many commonalities with the concept of gamification; both are related to motivation, engagement, immersion and getting connected. Recent studies observed that motivation and engagement increases with regard to the use of gamification in the classroom (Dehghanzadeh et al., 2019; Rueckert et al., 2020; Sailer & Homner, 2020). Gamification examples such as Escape Games are „based on solving puzzles and accomplishing tasks [...] built around using the mind to solve challenges" (Nicholson, 2018:45). Thus, they become "a natural match to the learning environment of the classroom and the types of activities that students already do" (Nicholson, 2018:45). In the foreign language classroom, activities potentially perceived as tedious such as memorizing vocabulary or grammar may become more attractive because of a game goal that needs to be achieved. Moreover, gamification offers the possibility to present educational content implicitly (Dehghanzadeh et al., 2019). Immersive features of games, such as storylines or avatars, make students "forget" that they are learning. They instead focus on the goal of the game. Additionally, skill-specific puzzles in educational Escape Games are more easily solved through group discussion and cooperation. The latter is a prerequisite to achieve (intercultural) communicative competence in the foreign language.

In the context of foreign language teaching and learning, games have another significant advantage. They help reduce inhibitions in using the foreign language (Dehghanzadeh et al., 2019) as well as change the way mistakes are dealt with during the learning process (Rober, 2018; Schmoelz et al., 2017). Following the interlanguage hypothesis, foreign language learning thrives on the act of experimenting (Selinker et al., 1975). A recent study shows however, that if errors and their correction are given special importance in language classrooms, this can either lead to students developing a



fear of bad grades or also to a special form of anxiety called xenoglossophobia – the fear of using the foreign language. This special form of anxiety manifests itself, for example, through stress symptoms such as sweating or rapid heartbeat and can lead to feelings of shame or even the permanent avoidance of the foreign language. For the classroom and foreign language teaching, this has numerous implications, such as a decline in student confidence or students not speaking at all (Böttger & Költzsch, 2020). By including skill-specific gamified tasks in language learning, foreign language teachers can use characteristics of gaming to establish a learning atmosphere in which mistakes are an essential step of the learning process. As games allow for mistakes or even require them in order for players to perform better (Schmoelz et al., 2017), school students do not see mistakes in games as failures, but rather as encouragement to do better next time (Rober, 2018). Importantly, planning, conducting, and evaluating high-quality gamified learning scenarios requires training in connecting task design and subject-specific learning objectives. The following seminar concept and classroom research present avenues how to integrate digital task formats in pre-service teacher training.

## 2. Designing digital tasks in foreign language teacher education

Digital task development has not been the focus of practical pre-service teacher training in Germany. Responding to the ongoing digitalisation of learning spaces and the need for digital task formats – reinforced by the current pandemic and the resulting shift towards distance learning – we developed a seminar concept that trained pre-service teachers in designing skill-specific digital escape room scenarios for foreign language classrooms. The learning objective was to foster pre-service teachers' competences to design subject- and skill-specific digital Escape game tasks in relation to underlying cognitive processes. In the seminar, pre-service teachers not only produced and tested their own digital educational Escape Games, but also reflected on the added value and challenges of gamified tasks on the learning process in (digital) foreign language classrooms. In doing so, they focused on specific groups of primary or secondary school students, on corresponding contents of the curriculum, and on foreign language competencies that were to be trained within the game (cf. Table 1). It should be noted that training communicative competencies such as speaking were set as learning objectives in all three games, as they were all designed for teamwork:

**Table 1: Skill-specific digital Escape Games developed in the seminar “Gamification in the English Language Classroom” in summer term 2020**

Target Group	Title	Story	Curriculum Content & Foreign Language Competencies
Primary, grade 4	Mix the medicine	Oh no, your friend from England is terribly sick! His grandma has the recipe to his medicine but needs your help. Can you help your friend get well in time?	Going shopping (currency, products), basic sentence structure and vocabulary, listening comprehension
Secondary, grade 7	A journey into the past of Ireland	As one of very few reporters, you have been chosen to try out the latest invention: a time machine! Travel back in time to write your article - but wait! What happened? Has your time machine broken down? Can you find a way to repair it?	Ireland (history and culture), close reading, listening comprehension
Secondary, grade 8	A slightly different flight to New York City	As you are on your flight to NYC, suddenly your plane must make an emergency landing in Canada due to a terrible storm. Can you and your classmates find your way around the city?	Canada (culture, geography), if-clauses, listening comprehension, reading comprehension, independent research



Pre-service teachers tested the games with school students in regular English lessons synchronously via digital conferencing systems and collected data on the students' gaming experiences. Based on these results, they were able to debate whether gamified tasks support language learners' motivation, engagement and learning through collaboration.

### 3. School students' perceptions of language learning in digital Escape Games

The educational Escape Games developed in the seminar were tested by 117 primary (n=33) and secondary (n=84) school students to examine their benefits for language learning.

The results of the survey show that most students experienced feelings related to implicit learning and intrinsic motivation. While almost 50% of the students stated that the game had felt like their regular lessons, more than 75% stated that the time of the lesson had passed more quickly than usual and that they had been eager to solve the puzzles (Table 2).

Regarding fostering collaborative (intercultural) communication skills, more than 50% of all students agreed that working together as a team had helped them win the game. 67% indicated that they preferred playing such games with others (ibid.).

**Table 2: School students' perceptions of digital Escape Games (n=117)**

Questionnaire Item	Percentage
Was the game like your usual lessons today?	
Yes	16%
A little	48%
No	28%
I'm not sure	8%
Time in class went by ... than usual today.	
Faster	78%
Slower	5%
Not Different	17%
Did you want to solve the puzzles?	
5 (Yes, definitely!)	36%
4	42%
3	16%
2	3%
1 (No, I was not interested.)	3%
Do you prefer to play such puzzle games...	
Alone	19%
Together with others	67%
I'm not sure	14%
Was your team able to help you solve the puzzles?	
Yes	60%
No	17%
I'm not sure	23%

The overall positive experience of the learners and their motivation to solve the puzzles suggests that implementing educational Escape Games in the language classroom may also lead to a change in attitude towards making mistakes. This is because priorities change: winning the game is prioritised over the error-free use of the foreign language.

When asked what knowledge they had acquired, school students mainly mentioned cultural knowledge, but also grammar, vocabulary, as well as learning strategies. Regarding general linguistic comprehension during game play, 86% of secondary school students reported that they had experienced no problems at all in understanding the games in the foreign language. In contrast, this was true for only 30% of the primary school students. In addition, almost half of all primary school students (48%) stated that they had not understood everything in the game because of the foreign language. This, in turn, was noted by only 5% of the secondary school students. These findings suggest that gamified teaching methods, such as educational Escape Games, are perhaps more suitable for secondary school students due to the increased language level.



#### 4. Conclusion

More research is needed to examine the relationship between foreign language learning and gamification. This study shows that digital Escape Games are a valuable addition to the portfolio of teaching foreign languages, as most school students described learning in digital Escape Games as more motivating and engaging than conventional lessons. Working collaboratively to achieve a game's goal may eventually result in a changed perception of making mistakes. Given the small number of participants, the absence of a control group, the novelty of the task format in the eyes of the students and our focus on the specific task format of digital educational Escape Games, future research should focus on other task types and examine a potential correlation of xenoglossophobia and gamification in greater depth.

By integrating digital task-development in foreign language teacher education, pre-service teachers learn to productively design learning scenarios in digital contexts, to critically reflect on task formats through practical experience and develop professional foreign language teaching competence. This in turn, does not simply generate a general acceptance of digital teaching task formats, but instead fosters an evaluative attitude towards new task formats and competence to produce innovative language learning scenarios in hybrid learning contexts.

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