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# Feedback, gamification and motivation: contributions to permanence in distance education





Juliana Ribeiro dos Santos

Federal University of Pelotas (UFPel), Pelotas, Rio Grande do Sul, Brasil julianaribeirosantos27@gmail.com





Aline Mackedanz dos Santos

Federal University of Pelotas (UFPel), Pelotas, Rio Grande do Sul, Brasil alinemackedanz@gmail.com





Gabriela Bohlmann Duarte

Federal University of Pelotas (UFPel), Pelotas, Rio Grande do Sul, Brasil

gabrielabduarte@gmail.com

**Abstract**: This study examines the factors that influence student motivation and retention in an online English reading course. Using a qualitative approach, action research and survey methods were used to collect data from participants. It was found that the gamification methodology and feedback used in the course influenced the motivation and retention of the majority of students. However, factors external to the learning situation, such as the demands of academic and/or personal life, were also associated with student motivation and played a role in retention.

Keywords: Distance Education; Gamification; Feedback; Student Permanence and Evasion.

# Feedback, gamificação e motivação: contribuições para a permanência na educação a distância

**Resumo**: Este estudo examina fatores que influenciam a motivação e a permanência dos alunos em um curso on-line de leitura em inglês. A partir de uma abordagem qualitativa, utilizou-se da pesquisa-ação e do método *survey* para a coleta de dados dos participantes. Observou-se que a metodologia da gamificação e o *feedback* utilizados no curso influenciaram a motivação e a permanência da maioria dos alunos. Contudo, fatores externos à situação de aprendizagem, como demandas da vida acadêmica e/ou pessoal, também estavam associados à motivação dos estudantes e exerceram um papel na permanência.







Palavras-chave: Educação a distância; Gamificação; Feedback; Permanência e Evasão.

## Feedback, gamificación y motivación: contribuciones para la permanencia en la educación a distancia

**Resumen**: Este estudio examina los factores que influyen en la motivación y retención de los estudiantes en un curso de lectura de inglés online. Mediante un enfoque cualitativo, se utilizó la investigación-acción y el método de encuesta para recoger datos de los participantes. Se observó que la metodología de gamificación y el feedback utilizados en el curso influyeron en la motivación y retención de la mayoría de los estudiantes. Sin embargo, factores externos a la situación de aprendizaje, como las exigencias de la vida académica y/o personal, también se asociaron con la motivación de los estudiantes y desempeñaron un papel en la permanencia en el curso.

Palabras clave: Educación a distancia; Gamificación; Feedback; Permanencia y Evasión.

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#### 1 INTRODUCTION

In recent years, we have seen a steady increase in the number of Distance Education (EaD) courses offered, especially after the Covid-19 pandemic. We know this type of course has been offered since the 1930s when correspondence courses began to be offered to the population. However, in the last 12 years, there has been a significant increase in the number of students enrolling in EaD courses. According to the 2021 Census of Higher Education (Inep, 2022), while the presential modality showed a negative variation in the number of entrants, the adherence to distance learning offers showed an increase of 474%, which shows the popularization of these courses.

EaD is defined by Decree 9.057 of May 25, 2017, as the educational modality in which the teaching and learning process, in addition to being mediated by the use of digital information and communication technologies, takes place in different places/spaces and times (Brasil, 2017). These characteristics allow students to obtain a diploma or certification regardless of place and/or time, as distance education proposes training that breaks the barriers of space and time (Hermida; Bonfim, 2006; Santos; Neto, 2009). This not only increases the possibilities of training at different levels within different routines but also the chances of access by a greater number of students.

However, although there is broad access, it is necessary to look at the sustainability of EaD. According to the EAD.BR Census (ABED, 2022), an annual report on distance education in the country, the evasion rate in distance education courses fluctuated around 25% between 2020 and 2021. Although the report points to financial difficulties as the main cause of dropout in the institutions studied, recent studies show that aspects related to motivation, teaching materials, and even feedback can also contribute to this phenomenon (Branco; Conte; Habowski, 2020; Senhorinha et al., 2021; Silva; Castro, 2022). These studies also point out that, due to the lack of face-to-face contact, the relationship between teacher and student should be encouraged to support both learning and persistence.

In this way, we understand that the use of an active methodology - gamification - combined with dialogue through feedback, can be a way to strengthen the relationship in the educational environment, especially in language teaching. In addition to being a feature of the gamified design itself, feedback can accompany students as they carry out the activities, encouraging progress in the tasks. Furthermore, based on a complex perspective of the classroom, we understand that the classroom, whether in presential or distance modality, is a complex adaptive system, open to internal and external influences, sensitive to feedback and initial conditions, dynamic, unpredictable and non-





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linear (Larsen-Freeman; Cameron, 2008). Therefore, we understand that the motivation of students to stay in the courses, carry out the activities, and have a better chance of developing their learning process may be related to the structure of the course so that both the feedback and the way it is presented can have a positive impact on such processes (Paiva, 2003; Costa et al., 2019).

The aim of this article is, therefore, to present an analysis of the results of two editions of a distance-learning English reading course. Our specific objectives are to identify the motivational elements related to the level of the learning situation and to analyze the relationship between these elements and students' permanence in the course. The object of analysis was offered through a teaching project for undergraduate and postgraduate students at a public university in southern Brazil. Based on a qualitative approach, the use of action research and data collection using the survey method, it was possible to investigate how the participants perceived the contributions of both the organization of the course and how feedback was presented throughout the activities.

In synthesis, after this introductory section, we address the issue of motivation in distance education and then the importance of active methods for participants to stay in courses in this context. After that, we present the research methodology and the results obtained, and finally, the reflections on the research carried out.

#### **2 DEVELOPMENT**

#### 2.1 Motivation to Stay in EAD

Studies of motivation in language learning demonstrate the complexity of this construct. First of all, motivation can be seen as "a process by which a certain amount of stimulating force arises, initiates action, and persists until no other force manifests itself to weaken it and thus terminate the action, or until the planned result is achieved" (Dörnyei, 1998, p. 118, translated by us). Although this concept seems easy to understand, this initial stimulus involves not only the personal factors of the foreign language learner but also the social and educational aspects surrounding the teaching and learning process. Therefore, to encompass the basic components of this process (language, student, teaching context) and the social, personal and educational dimensions, Dörnyei (1994) proposed that motivation is based on the tripod of the linguistic level, the personal level, and the learning situation.

The linguistic and personal levels refer to the social context of language use and the cognitive aspects of the learner, respectively. Meanwhile, the learning situation level encompasses the intrinsic and extrinsic motivations of the learners, and it has motivational components related to the course, the teacher, and the group of students (Dörnyei, 1994). Therefore, since one of the aims of this article





is to understand the elements that contribute to maintaining the motivation of participants in a reading project in another language, we sought to identify the motivational elements related to the level of the learning situation. To do this, it is important to understand the concepts of intrinsic and extrinsic motivation and the motivational elements that make up the learning situation, as mentioned above.

Until the advent of self-determination theory, intrinsic and extrinsic motivations were seen as opposites. While the former was related to the pleasure or personal satisfaction of doing something, the latter had some external reward as a motivating factor. However, Deci and Ryan (1985) revised the relationship between the two concepts by considering autonomy from a self-determination perspective as a prerequisite for a behavior to be intrinsically rewarding. Thus, according to the authors, students are intrinsically motivated when they do something not only for personal satisfaction but also when their competence and autonomy are challenged. However, because extrinsic motivation is not triggered by genuine interest, the individual goes through a process of internalizing and integrating external motivational factors. Thus, the more students understand the external reasons for doing something, the more autonomous and extrinsically motivated they will be (Deci; Ryan, 1985; Ryan; Deci, 2000).

In addition to these two motivations, the learning context includes three motivational components. According to Dörnyei (1994), course-related elements include curriculum and methodology, teaching materials, and activities that influence students' interest, relevance, expectations, and satisfaction. Teacher characteristics, on the other hand, include the teacher's personality, teaching style, feedback, and relationship with students. Finally, group-specific motivational components include the learning dynamics and values shared by the students (Dörnyei, 1994).

When considering the context of distance education, the aforementioned aspects may play a relevant role in the permanence and evasion of students in this learning environment. This can be demonstrated by studies conducted in Brazil, such as those by Senhorinha et al. (2021), Branco, Conte, and Habowski (2020), Silva and Castro (2022), and Tedesco, Leston, and Da Cunha (2016). Although they do not address the issue of language teaching in EaD, these studies, when analyzing student permanence and evasion in distance education courses, highlighted critical factors for student permanence, that is, aspects necessary to maintain an initiative throughout the course.

Senhorinha et al. (2021) analyzed aspects related to three groups of critical factors, namely the academic system, the teaching model, and the teaching materials and virtual learning environment (AVA) used in EaD. Based on the analysis, the commitment to study and to the due date of activities,





the difficulty of adapting to EaD due to the lack of face-to-face contact, and the lack of teacher feedback were considered critical points for dropout. Meanwhile, the grade obtained, personal planning, interactivity, and the interface provided by the AVA are considered by the authors as attention factors because they affect some students but not others. Therefore, these critical and attention factors for student permanence are related to the motivational components of the learning situation (Dörnyei, 1994), since they refer to characteristics of the course and the teacher as essential for student permanence.

Similarly, Branco, Conte and Habowski (2020) highlight motivational factors as essential for students to stay in EaD courses. According to the authors, both characteristics related to the curriculum and methodology, such as a lack of contextualization or clarity in the activities to be carried out, and the relationship between teachers/tutors and students, such as a lack of dialogue through feedback between these parties, are aspects that contribute to students dropping out of this modality. Once again, these characteristics are related to the specific motivational elements of the course and the teacher, as proposed by Dörnyei (1994).

Silva and Castro (2022), on the other hand, when addressing the issue of dropout, identified five dimensions that encompass factors for permanence in EaD. The first is learning support, which highlights teacher support and knowledge as relevant factors for student permanence. The dimension of study conditions points out that quality time and good conditions in the student's study environment also contribute to reducing evasion. However, also in this dimension, external commitments such as work and/or family appear as a barrier to continuing an e-learning course. In addition to these dimensions, Silva and Castro (2022) also postulate self-discipline, rigor, and quality of the course, and technological ability, health, and technology as three other categories that favor the permanence or evasion of students.

Finally, Tedesco, Leston, and da Cunha (2016) linked the problem of evasion in distance learning courses to factors such as the perceived low quality of teaching, the lack of preventive measures, and the need for clarity in teaching methodology. In the study in question, the reasons for evasion in EaD courses were listed, including the discrepancy between the expectations of the course and the reality of the students. In this case, a course that does not meet students' initial expectations in terms of content, workload, or teaching methodology can lead to frustration and dropout. In addition, the authors point out that academic difficulties contribute to dropout, as distance learning requires autonomy and discipline from the student, which can be challenging for some. Thus, the lack of adequate support, combined with the difficulty of keeping up with the content and completing the







activities also exacerbates the problem. Lastly, the study shows that time constraints are another important factor, as balancing the demands of the course with other responsibilities is a significant challenge for many students.

Therefore, in light of the considerations presented in these studies, it can be seen that the factors that influence permanence in an EaD course are diverse and may go beyond the intrinsic and extrinsic motivations of the students. This is because "human motivation to learn is a complex phenomenon involving several different sources and conditions" (Dörnyei; Csizér, 2002, p. 424, translated by us). Initially, the dynamic relationship between the student and the learning context affects motivation, as these two elements are constantly reacting and adapting to each other (Dörnyei; Macintyre; Henry, 2015). However, motivation is not limited to aspects of the educational context, as it is not only a dynamic force but also "involves social, affective and cognitive factors that manifest themselves in desires, attitudes, expectations, interests, needs, values, enjoyment and effort" (Paiva, 2011, n. p., translated by us). Therefore, although some motivations are related to the learning environment, others can be influenced by factors external to this context, as the above studies show.

In this way, by drawing a parallel between motivation and the factors for permanence in a distance learning course, as proposed in the analysis presented below, it is possible to consider not only the motivational elements related to the components of the learning circumstance but also some external factors that act on this process. It is also possible to reflect on the influence of new methodologies on student motivation in the teaching and learning environment. The following is a brief discussion of active methodologies and their relationship to motivation in language learning.

#### 2.2 Active Methodologies, Motivation and Permanence in EaD

Active methodologies refer to teaching and learning methodologies that place student action at the center of their approaches. In this way, for example, there is an emphasis on questioning and experimentation practices, rather than exclusively instructional practices. According to Moran (2015, p. 3, translated by us), "the emphasis on the active word must always be coupled with reflective learning to make visible the processes, knowledge, and skills of what we are learning with each activity."

Thus, active methodologies provide for active learning with an emphasis on reflection and learning processes and the development of various skills. In addition, there is also the possibility of developing hybrid learning, which focuses on a mixture of times, spaces, techniques, and materials. For this reason, it is natural that hybrid learning includes the use of technology so that such mediation





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allows the search for information, questioning, and reflection in physical and digital spaces in a ubiquitous way (Moran, 2015).

Among the different methodologies, we have chosen gamification which has been used in one of the course offerings presented in this article. Gamification can be defined as the use of game characteristics in non-game activities (Deterding et al., 2011; Stanley, 2012; Werbach; Hunter, 2012). It has been used in education to stimulate students' extrinsic motivation. However, it is important to note that this relationship may not be so direct, as gamification is not simply the addition of isolated game features such as scoring or ranking, but rather a game experience within a gameful design (Duarte, 2017; Deterding et al., 2011; 2016; Dichev et al., 2014).

In order to develop the gamified edition of the course under study, which was offered as a distance learning course, the above points were taken into account. Creating the user experience of a game on a platform not natively prepared for it required an approach focused on the choice of narrative and visual elements and the game mechanics. To this end, a narrative was developed based on objectives, challenges, and missions, incorporating visual resources common to games, allowing students to lead a character to the end of activities, and giving students a leading role in their learning experience (Prensky, 2012).

Image 1: Character created for the construction of the gamified narrative during the second edition of the course



**Source:** Authors (2023).

Furthermore, recognizing the importance of immediate feedback and reward systems in games (Alves, 2015), the decision was made to automate all feedback information on activities so that players could immediately see their performance. The rewards were configured based on the player's progress: the activities and materials were fully available on the page, but they were blocked. To make progress, students had to complete the activities, which unlocked subsequent sections of materials and activities, providing a sense of progress and reward.





In summary, the gamified approach used in this course was designed to provide a dynamic learning experience that met students' expectations and needs. Although we did not have access to the motivations of the students who enrolled and participated in the activities before the course was offered, we assumed that, given the characteristics of the course, there could be a greater presence of extrinsic than intrinsic motivations and, therefore, gamification could play an important role in this permanence. However, it must be emphasized that, in essence, gamified design tends to be more beneficial for students who are not intrinsically motivated since it changes the more traditional design of organizing activities and instruction (Duarte, 2017; Stanley, 2012; Werbach; Hunter, 2012). With this in mind, gamification was chosen to encourage students to stay in the distance learning course based on the motivation generated throughout the activities and modules.

In the next section, we will present the methodology used to collect and analyze the data from the two editions of the course offered.

#### 3 METHODOLOGY

This article aims to present an analysis of the results of two editions of an online English reading project. In this analysis, the perception of the students - who participated until the end of the project - regarding the maintenance of their motivation is considered to highlight the elements that influenced this process and contributed to the participants' permanence. Therefore, this is a qualitative research (Flick, 2013) guided by the action research methodology, which has four stages: planning, action, observation, and reflection (Paiva, 2019). In the planning stage, the context in which the project would be applied was analyzed and questions about its development were raised. In action, the reading project was developed to meet the needs that had been highlighted. Observation was used to monitor the implementation of the course. Finally, in reflection, the action was evaluated to start a new cycle of action research with the implementation of the second edition.

The participants were students enrolled in the two editions of the teaching project "English Language Reading Skills for Academic Contexts", an action developed in the distance learning modality and aimed at students of the Federal University of Pelotas. Both editions of the project took place in E-Projeto (E-Project), one of the virtual learning environments used by the institution. However, although the editions covered the same content, their internal structure changed. While the first edition was divided into three modules and included synchronous sessions at the end of each module, the second application had one module less and no synchronous sessions. In addition, the biggest difference was the gamification of the last application.





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At the end of each module in both editions, data were collected using survey-type research, as we wanted to understand and identify the motivations of the students participating in the course (Paiva, 2019). For this purpose, we chose to use questionnaires created in Google Forms, with 3 questionnaires in the first edition and 2 in the second. The data collection instruments were designed with questions about both the content and the structure of the project to highlight motivational elements related to the learning situation, which may have been essential for the participants to stay. Once collected, the data from each edition were analyzed individually, and, in a second step, a comparative analysis was made between the two editions to identify similarities and differences in the permanence of individual motivations.

In the next section, we will present the results and discussion, divided into two stages: the 1st and 2nd editions of the course "English Language Reading Skills for Academic Contexts".

#### **4 RESULTS AND DISCUSSION**

#### 4.1 1st Edition of the Course

The first edition of the project "English Language Reading Skills for Academic Contexts" was built using a traditional approach on the E-Project platform provided by the Federal University of Pelotas. In this edition, the platform was updated with new materials and activities on a weekly basis. Below (Image 2) you can see the cover of the home page of the course.

**Image 2:** Front page of the first edition of the course



<u>2022 - Habilidades de leitura em Língua I...</u> Projetos de Pesquisa

Source: Authors (2022).

In this edition, thirty places were offered for the second semester of 2022. Although all the places were filled and there was a long list of substitutes, which shows the high demand for the EaD course, only 20 students joined the course. Of these, the scenario demonstrated by the data in Tables 1 and 2 took shape throughout the project..





Table 1: Data from the First Edition of the Project

Number of vacancies offered	30 vacancies
Number of entrants	20 students
Number of graduates	9 students
Number of students who agreed to take part in the survey	8 students
Number of students monitored in the research <sup>1</sup>	7 students

Source: Authors (2022).

**Table 2:** List of survey instruments answered by participants

Questionnaires answered <sup>2</sup>	A1	A2	A3	A4	A5	A6	A7
1	X	X	X	X	-	X	X
2	-	X	X	X	X	X	X
3	X	X	X	X	X	X	X

Source: Authors (2022).

The five participants (A2, A3, A4, A6, and A7) who completed the survey collection instruments reported different motivations in the first questionnaire. One postgraduate student (A2) highlighted the need and the desire to practice reading in English for reading proficiency tests as motivating factors for participating in the project. Similarly, two undergraduate students (A3 and A6) also recognized the need to read for their field of study and emphasized that they were in the course for this purpose. Finally, two students (A4 and A7) reported that they participated in the project purely out of their desire and/or curiosity about the subject. Thus, while the initial motivations of A2, A3, and A6 were related to external factors such as the need to read for their professional training, A4 and A7 demonstrated a simple personal desire to do the project.

In the second questionnaire, the same five participants (A2, A3, A4, A6, and A7) reported that they kept their motivation to participate in the project by pointing out aspects that contributed to it and points that could be improved. The analysis of the answers showed that the perception of learning, the characteristics of the distance learning modality, and issues related to the structure of the course (didactics, materials, and feedback) were essential aspects in maintaining the initial motivation.

<sup>&</sup>lt;sup>2</sup>In addition, of the 7 students who were monitored, 5 answered all the questionnaires, and 2 answered only two of them.



<sup>&</sup>lt;sup>1</sup>Of the 8 students who agreed to participate in the research, one only answered the questionnaire for the midterm module, making it impossible to monitor their motivation throughout the three modules.



In terms of learning, the reward of seeing positive results from contact with the target language was highlighted by three participants (A3, A4 and A6) as an important factor in their motivation. Meanwhile, the offer of the course in an EaD modality was present in all the participants' answers and contributed in whole or in part to these students staying. Although some students (A2, A6 and A7) liked the EaD course because of its flexibility, as can be seen in A6's response, other participants (A3 and A4) pointed out that the dynamics of the project could be improved because there were few synchronous interactions, as can be seen in A3's response. Thus, although these two students (A3 and A4) enjoyed the course, they felt the project would be more useful if it were face-to-face.

The dynamics of the project, with the exception of the classes, are flexible and allow me to participate even when I'm busy with other responsibilities. I find the materials provided interesting and the deadlines are long enough for me to complete the activities without rushing. (Participant A6's report on the dynamics of the EaD project, 2022, translated by us).

I have to say that sometimes, due to the lack of a weekly or bi-weekly cadence, things get weak or null, but I always open the page to look at the material. (Participant A3's report on the dynamics of the EaD project, 2022, translated by us).

Regarding the structure of the course, not only the didactics, but also the materials and the feedback provided were points of agreement among the participants as elements that contributed to their retention in the project. The participants' perception of the materials can be illustrated by A7's response, and of the feedback by A6's report.

I'd like to congratulate those who choose the texts and create the quizzes for our activities. The texts are great and, as always, they are related to current events, which makes them even more interesting. And the activities are always related to what we are studying, as well as being clear and simple, which allows the students to understand them better. (Participant A7's report on the dynamics of the EaD project, 2022, translated by us).

I think that the feedback from the teachers was sufficient for me to understand the course content. Most of the time, the feedback is clear but detailed, so the possibility of doubt is low. (Participant A6's feedback, 2022, translated by us).

Although the reports of A2, A4 and A7 are similar to the feedback of participant A6, one of the students (A3) felt the need for more commentary or explanation. Therefore, based on this report, the action research methodology allowed reflection on this point and made it possible to change the feedback format. Therefore, in the third module of the course, the feedback was given via video.

Even for these five participants (A2, A3, A4, A6 and A7), issues related to the perception of learning and the possibilities offered by distance learning were not mentioned in the last questionnaire as points for keeping their motivation. However, studying a topic of personal interest (A6) and the







structure of the course (A2, A3, A4 and A7), especially the feedback, were two points emphasized in students' answers.

To understand the importance of feedback in staying in the course, we can look at participant A2's answer to the question of what contributed to maintaining his motivation:

Yes, because the classes were good and there was always *feedback on the* activities, which encouraged me to do the tasks and continue in the course. (Participant A2's answer of maintaining initial motivation, 2022, translated by us).

Furthermore, with regard to the change in the feedback format, although the majority of participants did not consider the written delivery to be inefficient, they all highlighted the dynamism of the video, taking A6's account as an example:

Maybe. Although I didn't think the old way of giving feedback was inefficient, I think videos explaining each of the questions and how to arrive at the answers would have been more efficient. Maybe explaining the questions in class would have been as well, although it might have made the class too long. (Participant A6's report when asked about the change in feedback delivery, 2022, translated by us).

Finally, concerning the participants (A1 and A5) who responded to only two data collection instruments, it can be seen that they maintained their initial motivations for reasons similar to those of the students mentioned above. A1, like A2, reported taking the language proficiency test as a motivating factor for enrolling in the course. This initial motivation was maintained because, according to A1, the way he studied was easy because he was able to do the activities in his own time. Meanwhile, although Participant A5 did not state his reasons for joining the project, he highlighted distance learning as a factor that contributed to his motivation. Also, although A5 reported that he was not available for presential meetings, he highlighted this as an alternative to overcome the lack of personal interaction, as suggested by A3 and A4.

#### 4.2 2nd edition of the course

After analyzing students' perceptions of the first edition of the course and considering the dropout rate, the format of the project was revised and reformulated based on the principles of action research (Paiva, 2019). As a result, a second edition was launched, based on the principles of active gamification methodology. The material from the first edition was retained, but changes were made to the design, the structure of the course pages, and the feedback system.

**Image 3:** Home page cover of the second edition of the course





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<u>2023 - Habilidades de leitura em Língua I...</u> Projetos de Ensino

**Source:** Authors (2023).

In terms of design, it was decided to include graphic elements inspired by adventure games to create a visual connection to the game universe. In addition, a game-like narrative was developed to guide the course. This narrative featured a character named Read, a student at the Federal University of Pelotas who wanted to enter a master's program but needed to pass a reading competency test. The students' goal was to help Read prepare for this test by completing missions and facing challenges and enemies.

**Image 4:** Screenshot illustrating the *design* and character used in the cours



Source: Authors (2023).

Another crucial aspect of the gamification of the course was the configuration of the page on the platform where the course was offered. The course was pre-configured and all content was made available on the platform in advance, with automatic feedback for each of the activities, as shown in the image below. However, students could only access the material by completing the missions sequentially. In other words, to get to the second set of activities, they had to complete the first. This decision was based on the intention to create a sense of progress and immediate reward, which are common characteristics of games (Alves, 2015).

**Image 5:** Screenshot illustrating automatic *feedback* in one of the activities









**Source:** Authors (2023).

In addition, after analyzing the progress of the first edition of the project, it was decided to reduce the amount of content provided. This resulted in a course of 2 modules as opposed to the 3 modules previously offered. As a result, in this edition of the survey, 2 questionnaires were administered instead of the 3 provided in the previous edition.

In the second edition of the project, it was decided to offer 40 places in the first semester of 2023. As in the first edition, the demand was high and all the places were filled. However, once again, only some of these students started their activities, as shown in Table 3:

Table 3: Data from the Second Edition of the Project

Number of vacancies	40
Number of entrants	24 students
Number of graduates	14 students
Number of students who agreed to take part in the survey	24 students
Number of students monitored in the research <sup>3</sup>	13 students

Source: Authors (2023).

Students described a variety of initial motivations for starting the course. Students B1 and B2 emphasized the importance of improving their ability to read scientific articles in English. Student B1 expressed his interest in learning aspects that would help him interpret these scientific texts, while student B2, in addition to reading articles, recognized the need to take English proficiency tests in

<sup>&</sup>lt;sup>3</sup> Of the 24 students who agreed to take part in the survey, 11 did not answer the first and/or second questionnaire, making the proposed analysis impossible.





order to advance in his academic career, understanding that mastery of the language goes beyond the mere requirement of exams.

Like the character, Read, as a master's student, I am required to take a proficiency test in a second language, in my case, English. I believe that learning English goes beyond this need alone. However, while studying for the tests I will have to take, I realized that reading and interpreting texts in English is one of the most important aspects of the test. Therefore, when I saw the project advertised, I was interested in participating, both to prepare for the exam and to create a routine that would get me closer to learning English again. (Participant B2's report of her initial motivation to take part in the course, 2023, translated by us).

Another group, consisting of students B3, B5, B6, B9, B10, B11 and B12, showed interest in both the subject of the course and the importance of English in the academic and professional world. They recognized the relevance of English as one of the most widely used languages in the mentioned contexts and emphasized the need to master it in order to achieve their future educational and professional goals, such as obtaining Masters and Doctoral degrees, as well as carrying out research and further studies.

I wanted to take part in the project because I found the subject interesting, English is one of the most used languages in academic terms, it's a good opportunity to learn more. (Participant B3's report of her initial motivation to participate in the course, 2023, translated by us).

My motivation has to do with my professional future, because I want to continue studying for a master's degree and a doctorate, so it's necessary to have a command of English, especially reading. (Participant B9's report of his initial motivation for taking the course, 2023, translated by us).

There were also students, such as B4, B7, and B8, who expressed a desire to overcome personal obstacles related to the English language, such as reluctance or difficulty reading scientific articles. For example, student B8 mentioned his interest in improving his reading skills, while student B7 admitted that he found it difficult to read in the target language.

In the second and final questionnaire, the participants were asked about their motivation to continue with the course. Regarding engagement and progress in the activities as incentives, student B1 pointed out that he was able to pick up tips during the activities, which encouraged him to take the quizzes. Similarly, student B2 highlighted his ability to organize his schedule and dedicate himself to the activities, while student B6 revealed that his excitement in answering the quizzes encouraged him to continue.

I managed to organize my schedule in a very calm way so as not to overload myself, and I tried to dedicate myself as much as possible to each of the activities. Because they were designed in a very dynamic way, they helped to motivate me to study each unit/section. (Participant B2's report on maintaining initial motivation, 2023, translated by us).





One group of participants gave a positive assessment of the methodology and dynamics of the course. Student B3 pointed out the creativity of the course as a motivating factor, while student B4 emphasized that each tip provided a new insight into English. In addition, student B5 appreciated the selection of topics for the texts, and student B9 highlighted the fun of the activities and the quality of the texts as motivating elements. Finally, student B11 expressed his satisfaction with the character dynamics and the course narrative, which kept him motivated.

All the activities were great, especially the theme chosen for the texts. (Participant B5's report of maintaining initial motivation, 2023, translated by us).

I really liked the dynamic with the character and the story behind it, it kept me motivated. (Participant B11's report of maintaining initial motivation, 2023, translated by us).

Another group of students mentioned personal motivation and the goal of learning as driving forces. Student B7 revealed that his motivation was driven by the desire to learn and to become fluent in English. Student B8 mentioned that his motivation continued despite personal setbacks, while Student B10 mentioned his initial commitment to the course activities. Similarly, Student B12 emphasized that his motivation to complete the project remained despite unforeseen circumstances and the accumulation of activities. Finally, student B13 commented that his motivation was maintained in part because of the difficulties he had with the English language.

In addition, students expressed their perceptions of the structuring of the project, the use of narratives to guide the learning process, and the automatic feedback on activities. The perceptions were varied and reflected different experiences and points of view. Student B1 mentioned that his expectations were not only met but exceeded, showing his satisfaction with the course. Student B2 highlighted the adequacy of the workload and deadlines, while student B3 praised the creativity of the didactics used. Students B5, B6, B8, B9, and B10 also showed that their expectations had been met during the project, characterizing it positively in terms of the elements of its structure. Here is one of their reports:

Yes. I thought the project was well structured and I really liked the way the activities were presented. (Participant B5's report of having his expectations met during the project, 2023, translated by us).

On the other hand, some participants shared a mixed experience. Student B4 indicated that his expectations were generally exceeded, although he mentioned difficulties in initial communication about the project and time constraints due to other academic responsibilities. Student B7 also had a mixed view, praising the structure of the project but noting difficulties in concentrating due to the font





used in the material. B11 appreciated the structure of the project but expressed the expectation of a more advanced level of English in the activities. Student B12 indicated a complex experience with the course, being initially motivated but having difficulties due to the exams at the end of the semester. Finally, student B13 had a mixed perspective, suggesting that the structure of the project was satisfactory but that it could be improved by making explanatory videos for greater clarity and contact with teachers.

In addition, the students responded positively to the use of the narrative with a character to guide the content and activities of the English course. Most of the responses emphasized the creativity and didactic nature of the approach, as highlighted by participants B1, B2, B3, B4, B6, B7, B8, B9, B10, B11 and B12. They appreciated the dynamics and interactivity provided by the narrative, which kept them stimulated throughout the activities. Student B13 also found the approach interesting, although different from the conventional one. These responses reflect a largely positive reception to the use of gamified storytelling as an educational tool, as can be seen in the following excerpt.

I found it very creative and fun. While I was doing the activities, I felt stimulated by it. (Report by participant B11 on the use of gamified storytelling in the project, 2023, translated by us).

The automatic feedback on the activities was also positively evaluated by the participants. The majority of students, including B1, B2, B3, B4, B5, B8, B9, B10, B11, B12, and B13, felt that the feedback provided was useful for understanding and correcting mistakes, thus contributing to learning. However, Student B6 expressed a reservation, preferring that the correct answer be given immediately after an error rather than requiring a retry. Student B7 also noted that although the feedback was useful, he missed the broader interaction that would only be possible in a synchronous class.

Yes! I think that if the result took a long time, it would discourage me from continuing the activities. (Participant B5's report on automatic feedback in activities, 2023, translated by us).

#### 4.3 Comparing the 1st and 2nd editions

Based on the analysis of the results reflected in the answers to the questionnaires, it is possible to see the emergence not only of the concepts of intrinsic and extrinsic motivation (Deci; Ryan, 1985) but also of the influential triad proposed by Dörnyei (1994), made up of the elements of the linguistic level, the personal level and the level of the learning situation, the latter being particularly recurrent in keeping motivation throughout the course offered.





In both the first and second editions of the course, students expressed both intrinsic and extrinsic motivations in their initial responses. Some students reported a need to improve their language skills due to external factors that were not necessarily related to internal motivation, such as seeking career advancement or recognizing the importance of the language (Deci; Ryan, 1985; Ryan; Deci, 2000). On the other hand, there were reports of students who started the course for intrinsic reasons, driven by a personal desire to learn (Deci; Ryan, 1985).

When asked about maintaining motivation and their reasons for doing so, students presented a variety of aspects. In the first iteration of the course, students identified elements related to the learning environment (Dörnyei, 1994) as important factors in keeping their motivation. They highlighted aspects such as the structure of the course, the selection of materials, and the presence of the teacher, especially in the interactions and feedback offered. Areas for improvement were also identified, suggesting a possible impact on the demotivation of some students. In addition, intrinsic issues and personal achievements beyond the educational context were also mentioned (Paiva, 2011). In the third questionnaire, structural issues were again highlighted, while personal issues were not as evident.

In the second edition of the project, which was designed based on the assumptions of the active gamification methodology, the students placed more emphasis on the elements related to the learning environment. All 13 participants praised the structure of the course, describing it as creative and motivating to complete the activities. Again, feedback was highlighted as a positive and necessary aspect of maintaining student motivation. It can be seen, therefore, that this feedback to students is essential to support their learning (Silva; Castro, 2022) and, in the absence of it, can be a critical factor for students to remain in distance education (Senhorinha et al., 2021).

In short, the results obtained from the participants' responses reveal a possible relationship between the structural pre-planning of the educational program and the maintenance of both initial intrinsic and extrinsic motivation, which can increase student engagement throughout the courses. Both the need to improve language skills and the personal desire to learn play an important role in keeping motivation during the learning process. Taken together, careful structuring of lessons and the provision of constructive feedback may prove to be key elements in maintaining student interest and participation over time.

However, the study had some limitations, one of which was that it only analyzed the motivation of the students who remained until the end of the project. Although the two editions of the course had a significant dropout rate, it is assumed that the students were motivated to some extent.





Therefore, it may have been important to understand what led these students to drop out. A second limitation relates to the levels of motivation proposed by Dörnyei (1994). The focus of the research was on elements related to the learning situation, but exploring aspects related to the linguistic and personal levels could deepen the understanding of other external elements that may have influenced the participants' permanence.

In this way, considering the results and their limitations, we can see the importance of approaches that consider both the personal and contextual aspects of students for the success of the educational experience. By considering aspects that go beyond the classroom space, we understand the importance of a complex perspective (Larsen-Freeman; Cameron, 2008) to comprehend that this space, as a complex system, is constantly influenced by other systems, such as the motivations of each of the students. In addition, the initial conditions of this system will have an impact on the way interactions take place, as will the constant feedback between teacher and students.

#### **5 CONSIDERATIONS**

Returning to the specific objectives of the study presented here - to identify the motivational elements related to the level of the learning situation and to analyze the relationship between these elements and students' permanence in the course - we can see that, although the evasion rate did not decrease between the first and the second offer, the participating students noted that their motivation to complete the course was related to the design and format of the interactions and feedback during the assignments. Thus, based on these perceptions, it can be said that both internal and external aspects of the learning situation contributed to the motivational process of the students who remained in the course until its completion.

Therefore, when developing teaching and learning dynamics in distance education, it is important to consider the motivational implications for students. Thus, concerning the learning situation, the use of different resources and strategies, such as the implementation of immediate feedback and the use of the active methodology of gamification, are actions that can make the experience more meaningful and satisfying for students, which reflects on the permanence of these individuals in distance learning courses. It should also be noted that this contributes to the engagement in the proposed activities and the development of student autonomy, which are essential characteristics nowadays.

Finally, we emphasize the importance of action research as a way to monitor the students' interaction with the proposed activities and to make it possible to reorganize aspects that could be





improved to provide new learning experiences. Furthermore, from a complex perspective, we understand that such experiences can lead to new interactions and adaptations in the complex systems involved in the learning process, thus broadening the possibilities for change and responding to students' motivations.





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