

Gamification in Corporate Engagement: Case Study in Brazil*Gamificação no Engajamento Corporativo: Estudo de Caso no Brasil**Gamificación en el Compromiso Corporativo: Estudio de Caso en Brasil*Bianca Amaral de Lara Passeto¹
Mariana Crossetti da Hora²
Renato Montaleão Brum Alves³

Abstract. In the context of climate change and the urgent need for sustainable practices, this study investigates the effectiveness of a gamified training program in enhancing employee engagement and accessibility within a large multinational energy company in Brazil. The research, conducted in 2024, involved 462 participants across six companies, utilizing a mixed-methods approach that included data collection through Google Forms, direct observation, and observations by the training developer. The primary objective was to analyze whether a gamified approach could support engagement and accessibility for diverse participants, with a particular focus on how the training experience enhanced these aspects. The study revealed that gamified training engaged employees across all age groups, with over 70% of participants falling within the 20-39 age range. The digital format, designed to be inclusive and accessible, was key to engagement, especially for geographically dispersed employees and those with varied work profiles. The absence of a login requirement further facilitated participation, including sub-contracted staff. The findings underscore the potential of gamified training to enhance understanding of complex topics and create more engaging and effective corporate learning experiences. The study indicates that gamification can be a valuable tool for companies aiming to boost employee engagement and knowledge retention, ultimately fostering a more sustainable and committed workforce.

Keywords: Corporate Gamification. Employee Engagement. Corporate Training. Corporate Sustainability. Digital Accessibility.

Resumo. No contexto das mudanças climáticas e da necessidade de práticas sustentáveis, este estudo examina a eficácia de um programa de treinamento gamificado em aumentar o engajamento e a acessibilidade dos funcionários em uma grande empresa multinacional de energia no Brasil. A pesquisa, realizada em 2024, envolveu 462 participantes em seis empresas, utilizando uma abordagem de métodos mistos que incluiu a coleta de dados por meio do *Google Forms*, observação direta e observações do desenvolvedor do treinamento. O objetivo principal era analisar se uma abordagem gamificada poderia apoiar o engajamento e a acessibilidade de diversos participantes, com atenção especial para como a experiência de treinamento aprimorou esses aspectos. O estudo revelou que o treinamento gamificado envolveu funcionários de todas as faixas etárias, com mais de 70% dos participantes com idades entre 20 e 39 anos. O formato digital, projetado para ser inclusivo e acessível, foi fundamental para o engajamento, especialmente para funcionários geograficamente dispersos e com perfis de trabalho variados. A ausência de um requisito de login facilitou ainda mais a participação, incluindo funcionários subcontratados. Os resultados destacam o potencial da gamificação para melhorar a compreensão de tópicos complexos e criar experiências de aprendizagem corporativa mais envolventes e eficazes. O estudo indica que a gamificação pode ser uma ferramenta

¹ Especialista em Sistemas de Gestão Integrados. Engie Brasil Participações LTDA. <https://orcid.org/0009-0007-2726-4195>. E-mail: bianca.a.lara@gmail.com

² Mestranda em Análise e Gestão de Políticas Internacionais. Pontifícia Universidade Católica (PUC-Rio). <https://orcid.org/0009-0000-8697-441X>. E-mail: marianahora@gmail.com

³ Doutor em Informática. Universidade Federal do Rio de Janeiro (UFRJ). <https://orcid.org/0000-0001-8262-9264>. E-mail: renatobalves@gmail.com

valiosa para empresas que desejam aumentar o envolvimento e a retenção de conhecimento dos funcionários, promovendo, em última análise, uma força de trabalho mais sustentável e comprometida.

Palavras-chave: Gamificação Corporativa. Engajamento de Funcionários. Treinamento Corporativo. Sustentabilidade Corporativa. Acessibilidade Digital.

Resumen: En el contexto del cambio climático y la necesidad de prácticas sostenibles, este estudio examina la eficacia de un programa de formación gamificado para aumentar el compromiso y la accesibilidad de los empleados en una gran multinacional energética de Brasil. La investigación, llevada a cabo en 2024, contó con 462 participantes de seis empresas, utilizando un enfoque de métodos mixtos que incluía la recopilación de datos a través de formularios de Google, la observación directa y las observaciones del desarrollador de la formación. El objetivo principal era analizar si un enfoque gamificado podía favorecer el compromiso y accesibilidad de participantes diversos, prestando especial atención a cómo la experiencia formativa mejoraba estos aspectos. El estudio reveló que en la formación gamificada participaron empleados de todos los grupos de edad, con más del 70% de los participantes con edades comprendidas entre los 20 y los 39 años. El formato digital, diseñado para ser inclusivo y accesible, fue clave para el compromiso, especialmente para empleados dispersos geográficamente con perfiles laborales variados. La ausencia de un requisito de inicio de sesión facilitó aún más la participación, incluidos los empleados subcontratados. Los resultados ponen de relieve el potencial de la gamificación para mejorar la comprensión de temas complejos y crear experiencias de aprendizaje corporativo más atractivas y eficaces. El estudio indica que la gamificación puede ser una herramienta valiosa para las empresas que deseen aumentar el compromiso de los empleados y la retención de conocimientos, promoviendo en última instancia una plantilla más sostenible y comprometida.

Palabras clave: Gamificación Empresarial. Compromiso Empresarial. Formación Corporativa. Sostenibilidad Corporativa. Accesibilidad Digital.

Introduction

Climate change brings social, environmental, and economic consequences to companies and society. Since the Industrial Revolution, concerns about the unrestrained use of natural resources have been growing, and Environmental Education (EE) has stood out as an essential and evolving component. The Treaty on Environmental Education for Sustainable Societies, signed during the Rio 92 Conference in Rio de Janeiro, is an important milestone in this context. More recently, Education for Sustainability has emerged as an expansion of EE, aligned with the United Nations Sustainable Development Goals (SDGs). This approach seeks affirmative actions to preserve natural resources for future generations, promoting awareness (Costa et al., 2025).

In this context, the concept of a fundamental right to an environment that safeguards health and well-being for both present and future generations has emerged as a focal point of ongoing discourse in 2025. This proposed right aligns with the principles of sustainable development articulated in *Our Common Future* (World Commission on Environment and Development – WCED, 1987), which emphasizes the interdependence of ecological integrity,

equitable resource distribution, and poverty eradication. The report underlines that environmental degradation and social inequities are mutually reinforcing, underscoring the need for integrated policies that prioritize both climate resilience and human well-being. As the global community grapples with the dual challenges of decarbonization and equitable development, this right remains a cornerstone for fostering inclusive, sustainable transitions in energy systems and beyond (World Commission on Environment and Development (WCED), 1987).

For companies in the private sector, engaging in these topics ensures relevance and competitiveness in the market. In the energy sector, many companies decided to set public targets for decarbonization (Michaelides, 2023) and transition to mostly or uniquely renewable generation (Intergovernmental Panel on Climate Change – IPCC, 2023). In this process, various organizations have been established, including the Science-Based Targets Initiative (SBTi), a corporate climate action organization focused on developing standards, tools, and guidance for companies and financial institutions about GHG emissions reduction targets in line with a worldwide net-zero by 2050 scenario. Another example is Act4nature International, a business-led initiative with scientific partners, NGOs, and public bodies to mobilize the corporate sector in favor of biodiversity. In addition, the Taskforce on Nature-related Financial Disclosures (TNFD) – a market-led, science-based, and government-supported global initiative that developed a set of disclosure recommendations to help business and financial institutions with the assessment and reporting of nature-related risks and opportunities.

These groups help companies set emissions reduction targets aligned with climate science (SBTi, 2024); mobilize business commitments for nature preservation (Business for Nature, 2024); and develop frameworks for reporting nature-related financial risks and opportunities (TNFD, 2023), respectively.

Companies that comply with these standards must consistently adapt their working methods to meet their requirements and avoid accusations of greenwashing. In this context, it is essential for them that their employees understand why they have signed the agreements, how they are aligned with the company's strategy, and how to achieve the targets within the defined time frame (Popescu, 2019). However, this might be challenging sometimes, considering both engagement and accessibility of these educational needs.

The primary objective of this study is to analyze whether a gamified training approach, engaging employees with technical content, supports engagement and accessibility for diverse participants, with particular attention to how the training experience enhances these aspects.

Koivisto & Hamari (2014) research results on gamifying exercise indicate that age does not affect the benefits provided; however, older users tend to maintain their level of engagement more easily than younger users, who often become bored quickly. While the study also affirms that the unwillingness of older people to engage with gamified training may be related to a possible struggle with technology, it is acceptable that, more than 10 years later, these results may have changed.

At the same time, gamification is gaining prominence in the corporate training environment, offering benefits such as increased employee engagement, motivation, and performance. Studies indicate that elements such as points, levels, leaderboards, and achievements can make repetitive tasks more attractive and encourage continuous participation (Larson, 2020). Gamified training is not determinant for learning. However, it generates intense interest in the topics of the training, motivating people to study about it in other ways (Larson, 2020).

The digital format of gamified training offers significant accessibility and flexibility, which are essential for engaging employees effectively. This is particularly important for organizations with geographically dispersed staff or diverse work profiles, such as those working different shifts or remotely. The digital nature allows employees to access training materials anytime and anywhere, accommodating their varied schedules and locations, thereby enhancing overall engagement and participation in training programs (Capatina et al., 2024).

Table 1 - Theoretical Framework

Hypothesis 01	Older users tend to maintain their level of engagement more easily than younger users.	(Koivisto & Hamari, 2014)
Hypothesis 02	Gamified training can encourage employees to take more interest in the topic and seek knowledge from other sources	(Larson, 2020)
Hypothesis 03	The accessibility and flexibility of the digital format of gamified training are crucial factors for engagement, especially in companies with geographically dispersed employees or those with different work profiles (e.g., varied shifts, remote work).	(Capatina et al., 2024)

Source: Authors, 2025.

Theoretical Basis

Climate change poses significant challenges for corporations, requiring strategic adaptations and innovative approaches to training and management. Companies are

increasingly recognizing climate change as a business risk and engaging in corporate climate politics (Wright & Nyberg, 2015). To address these challenges, some organizations are implementing green training programs to support eco-innovation and the development of low-carbon products (Saturnino Neto et al., 2014). In the education sector, universities are redesigning teacher training programs to incorporate climate change mitigation and sustainability skills (Varela-Losada et al., 2018). At the corporate level, managing strategic changes in response to climate change involves improving strategic management, rationalizing corporate functions, and evaluating the impact of changes on competitiveness (Tamosiunas, 2010). These efforts collectively demonstrate the growing recognition of climate change as a critical factor in shaping corporate strategies, training initiatives, and management practices across various sectors.

Corporate sustainability training is gaining importance as organizations recognize the need to develop employees' competencies in this area. Research shows that sustainability-focused programs can enhance managers' knowledge and critical thinking, though challenges remain in harmonizing business objectives with sustainability principles (Brunstein et al., 2012). Training and development initiatives are crucial for companies to adapt to increasing competitiveness and technological advancements, fostering a sustainable vision among employees (De Figueiredo & Ferrazza, 2018). Identifying and removing these obstacles is essential for increasing training activities and, consequently, improving organizational sustainability (Trávníčková & Maršíková, 2023). Overall, corporate sustainability training plays a crucial role in developing employees' skills and enhancing organizational practices.

Corporate training engagement is a critical factor for program success. Gamification has emerged as a practical approach to enhance engagement, going beyond simple point-badge-leaderboard systems to incorporate narrative elements and psychological theories (Iacono et al., 2020). Organizational socialization also plays a role in engagement, with domains such as training, understanding, and future perspective positively correlating with employee engagement (Lisbona et al., 2009). Specific training programs, such as corporate resilience training, have shown significant positive effects on employee engagement (Yadav, 2014). These findings suggest that companies can enhance engagement in corporate training by incorporating gamified elements, focusing on organizational socialization domains, and offering targeted programs, such as resilience training. Such approaches can lead to increased productivity, job satisfaction, and a more conducive work environment (Yadav, 2014).

The integration of gamification in educational and corporate settings has demonstrated significant potential for enhancing engagement and learning outcomes, as evidenced by recent

studies in both Brazil's public education system and corporate environments. An initiative implemented in Brazilian elementary schools highlights the effectiveness of analog gamification in overcoming digital access disparities and fostering a more engaging learning experience (Prado et al., 2024). Similarly, other initiatives demonstrate how gamified approaches can be leveraged to improve technology adoption and digital literacy among students, ultimately leading to increased confidence and interest in technology-related fields (Prado, 2021; Prado et al., 2021). These findings resonate with the corporate gamification study, which underscores the potential of gamified training to enhance understanding of complex topics and create more engaging and compelling learning experiences. By incorporating elements such as points, levels, and leaderboards, both educational and corporate gamification strategies can motivate participants, encourage continuous participation, and ultimately foster a more committed and knowledgeable workforce or student body (Capatina et al., 2024; Larson, 2020).

Gamification in corporate training has emerged as an innovative approach to enhance employee learning and performance. Research indicates that gamification can significantly improve knowledge retention, sharing, and job performance (Capatina et al., 2024). Key elements of effective gamification include integration with training goals, rapid feedback, team competition, clear rules, goal-oriented challenges, and freedom to fail (Wang et al., 2022). Points, badges, and leaderboards are particularly effective game mechanics that positively influence employee engagement (Capatina et al., 2024). However, the implementation of gamification should consider individual company characteristics and employee needs (Boltyshev, 2024).

While gamification shows promise in increasing employee satisfaction with training outcomes, some elements like clear objectives and feedback may not significantly affect satisfaction (Deterding et al., 2011). Overall, gamification offers potential for improving corporate training systems but requires careful design and integration with educational objectives (Deterding et al., 2011; Wang et al., 2022). Gamification can be used as an effective tool to increase employee skills through interactive work instructions, promoting engagement, collaborative learning, and continuous improvement in organizational processes (Hamari, 2015). Despite research results indicating that gamification can lead to improved learning, the majority of gamification efforts implemented by corporations ultimately fail to meet enterprise goals due to inadequate design (Wyrobek et al., 2024; Zainuddin et al., 2020).

Methodology

The methodology employed in this research was qualitative, utilizing the case study method. Qualitative research seeks to gain a comprehensive understanding of a phenomenon, rather than its parts, as it treats reality and the subject as inseparable, reporting the interpretations of the interviewees. The qualitative paradigm is also known as constructivist, naturalist, or interpretive (Dias & Silva, 2010).

This article will analyze a gamified training program implemented in 2024 by an energy multinational company with around 2,000 employees across all Brazilian regions. Employees vary in terms of age, gender, education, and job functions.

The training lasted for 2 months, during which 462 employees participated, and 177 of them participated in the initial research. Data has been collected in three different ways:

1. Participant response through Google Forms: Employees have been encouraged to participate in two research studies as part of the game. Doing so, they would accumulate points for their gamified journey. There was no correct answer, and only participation counted. Each participant could fill in the form only once.
2. Direct observation from the researchers who work in the company, but have not participated in the training, only contributed to the development.
3. Direct observation and data collected by the developer of the training, delivered in the form of a Final Report.

Six companies of the same group took part in this study:

1. Company 01: The holding in Brazil.
2. Company 02: A renewable energy generation, commercialization, and transmission company that is listed on the stock market.
3. Company 03: An energy efficiency service provider for urban and corporate clients.
4. Company 04: A hydroelectric powerplant.
5. Company 05: A gas transportation company.
6. Company 06: An operation and maintenance company.

Results and analysis

The data was collected using three distinct methods, each of which offers unique advantages, contributing to a comprehensive and multi-dimensional dataset. The following

sections will analyze these methods in detail to assess their effectiveness and contributions to the study's findings.

Data collected through Google Forms

The data collected through Google Forms shows a demographic profile of the participants. In the first research study, 177 responses were collected from the participants, and in the second, 19 responses were collected. These differences can be explained by the format of the training, which was planned to be voluntary. In other words, each of the challenges and other proposed activities, such as the forms, could win you points, but were not obligatory. This comparison not only contrasted our game with the exhausting work routine but also with other game experiences. While most of them are often “unregulated products designed to capture users’ attention and promote endless play” (King et al., 2019), the object of this study was to provide a relaxing experience.

Employees in all participating companies frequently report being under constant stress and having too many responsibilities to manage. The designers believed that this was a possible cause of the low adherence to internal training and desired to propose something different. Carbon Net Zero scavenger hunt presents itself as an alternative, offering participants the chance to play at their rhythm.

If the employee chooses to engage during the two months when the activities are synchronous, they have the additional incentive of the multiple prizes offered to winners. However, the training was designed in a way that even a participant who started in the last week could access all the content and even win the best and final prize. This gives the opportunity for everyone to adapt their personal and professional agendas and even to avoid possible vacations that participants could have planned. Beyond that, the content was available for up to 3 months after this period, and it was still possible to interact with a huge part of what was offered.

To gain a clearer understanding of the participants' demographics and identify specific age-related patterns or trends, both surveys included an age question, with the results presented in Figure 1 above. It can be observed that 72% of the participants are between 20 and 39 years old. To support the proposed hypothesis, the average age of participants was calculated, resulting in 34 years (**Figure 2**). For this study, participants up to 34 years are classified as "younger users", while those aged over 34 are referred to as "older users," following the terminology proposed by Koivisto & Hamari (2014).

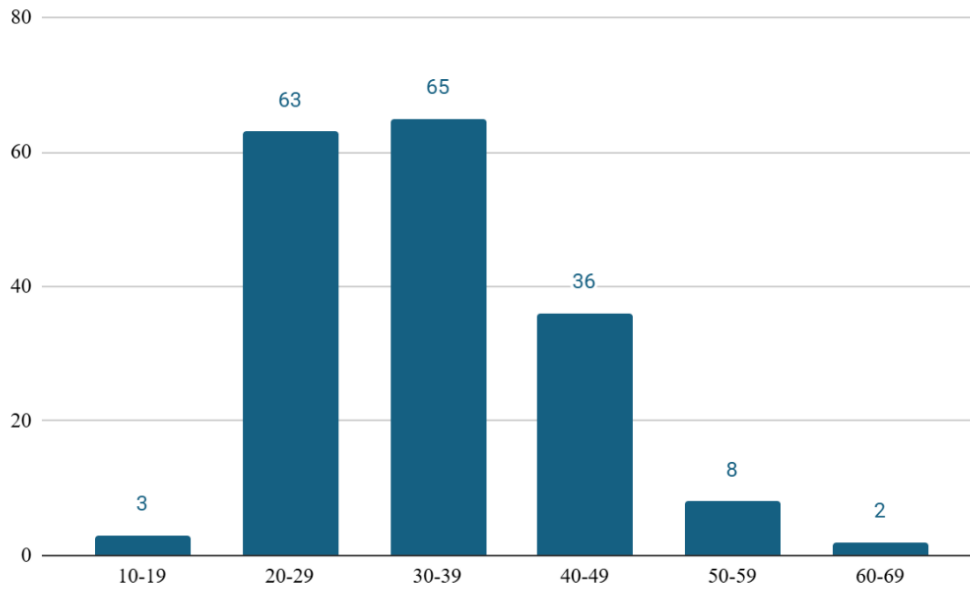


Figure 1 - Number of participants divided by age groups
Source: Authors, 2025.

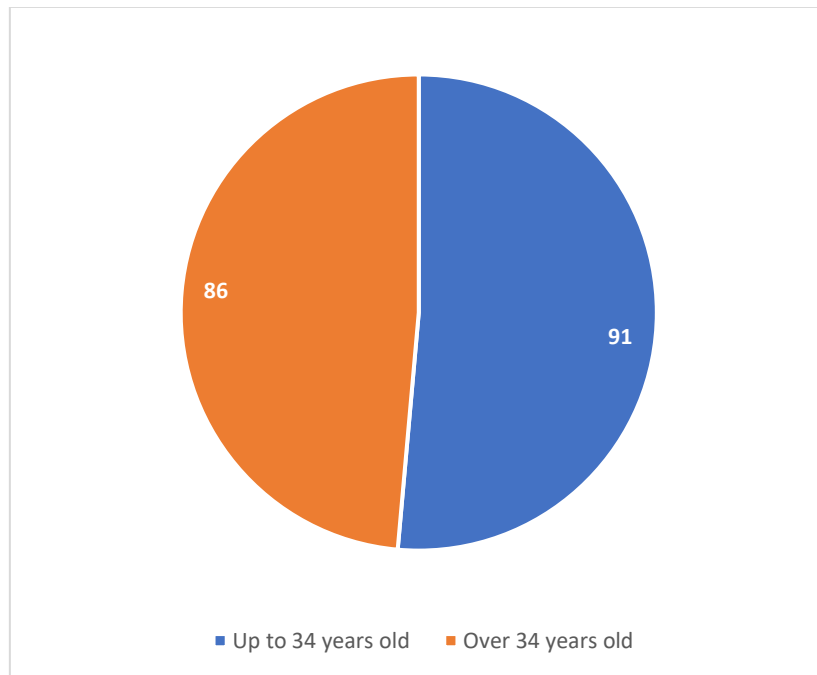


Figure 2 - Number of participants based on the average age of the first research
Source: Authors, 2025.

Based on the same baseline used in the initial survey (34 years old), it was possible to gather a comparable number of participants for this study, thereby maintaining demographic consistency between the two surveys and ensuring that the comparisons made were valid and meaningful (**Figure 3**).

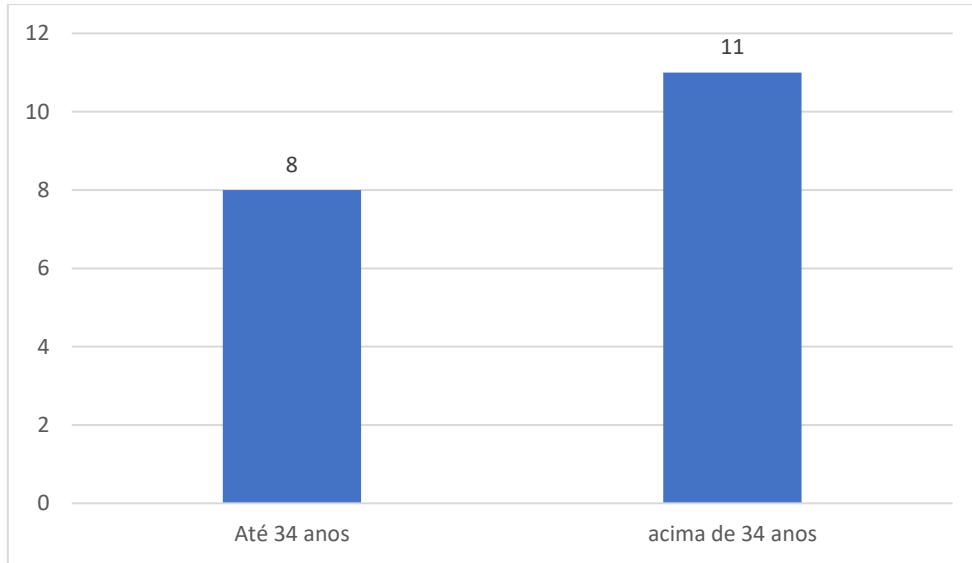


Figure 3 - Number of participants based on the average age of the second research
 Source: Authors, 2025.

Educational level is a crucial factor in case studies because it influences understanding, analysis, practical application, validity, engagement, and the interpretation of results (see Figure 4). By considering the educational level of participants, researchers can produce more comprehensive study results that apply to various contexts. Since the case study analyzed here aimed to provide the most accessible possible experience, it faced the challenge of being both helpful to employees with fewer instructions related to the scientific basis of climate change and not being a tedious experience for those with a more advanced background.

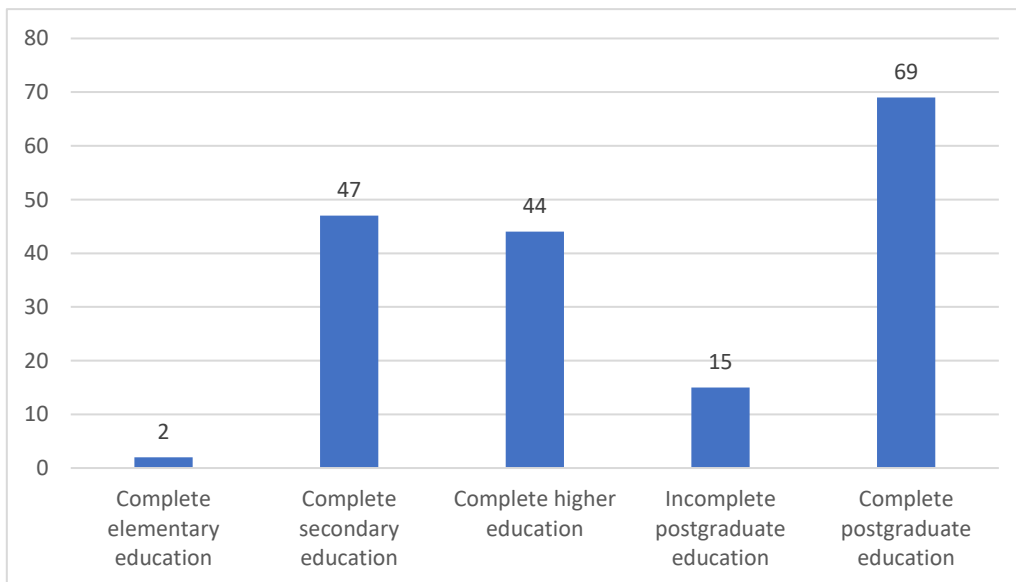


Figure 4 - Educational level in the first research
 Source: Authors, 2025.

Data collected through direct observation from the researchers who work in the company, but have not participated in the training, only supported the development

This section presents data obtained through direct observation by researchers affiliated with the company, who, although not participating in the training, contributed support to the project's development. The collection aims to document the dynamics, interactions, and practical contributions of these professionals, providing a contextualized view of the development process from an external perspective. These records complement internal analyses, enriching the understanding of the context and actions that shaped the progress of the work.

The company's purpose is aligned with the just energy transition, emphasizing both community involvement and respect for nature. However, with such a big operation and complex structure, not all employees fully understand the company's role in a changing world affected by global warming, socioeconomic distress, and environmental deterioration. At meetings, a lack of knowledge was demonstrated regarding basic principles of chemistry and biology.

To be as inclusive as possible, it was decided that any planned training would need to address the needs of individuals with almost no prior knowledge of the themes. It led to the adoption of the dynamic difficulty principle in the game, allowing those who needed more explanation to access it, but also ensuring that those who already knew some of the concepts would not feel like the training was not stimulating.

Another barrier for many employees was that many of the available materials and online courses by the company were sent directly by the matrix, lacking translation into Portuguese. According to the human resources department, most employees do not speak English, so a learning path for this topic, made entirely in their native language, was a pioneering project.

The format was also a preoccupation for the developers. It was observed that when activities are too complex and not available on different devices, particularly for people working on-site or in the field, it becomes difficult for them to benefit from them. This created a gap between corporate and administrative functions, as well as other areas that the demanding sector sought to address.

Based on the observations of the team responsible and the feedback received, this innovative experience was highly successful. Throughout the competition, numerous doubts and comments were made about the team, indicating that people were curious about the game.

At the end of the competition, some testimonies indicated that participants had learned and enjoyed themselves.

During the process, informal statements were documented that revealed nuances about work dynamics and the obstacles encountered. It is noteworthy that most participants have advanced academic training, adding analytical depth and diversity of perspectives to the interpretation of the data. Free translation by the authors.

“It was a challenging and educational competition. I have already commented on it to some of my collaborators, and I will share it with you: right from the beginning, I made it my goal to win the Competition, whether it was a stage or first place. I also made it a “leveler” for my PDI [individual development goals], because I see that when we set out to do something, we must do our best to achieve the results we want. It was great to learn more about Net Zero; I confess I did not know much about it by that name. I would also like to congratulate you on the publications. They all brought incredible content! Thank you so much!” (Company 2 employees and overall training winner)

“Taking part in the competition was a fun and educational experience! The virtual challenges, sustainability, and consumption reduction competitions were a blast. Each activity made me reflect on our actions. It was very inspiring and seeing everyone engaged and connected towards a more sustainable future was wonderful! Let us take care of our planet together!” (Company 2 employee)

“Taking part in the competition was a fun and enriching experience. The topics covered, such as decarbonization and energy transition, are essential for the future of our planet and for the company’s sustainability. The competition effectively conveyed this knowledge in a playful manner, broadening my understanding and reinforcing our commitment to sustainable practices. Let us make a difference together!” (Company 3 intern)

Data collected through direct observation and data collected by the developer of the training and delivered in the form of a final report.

The participation of the target audience has continually increased throughout the five phases, culminating in 462 active participants. As a milestone of the employees interest in the game, more than 100 participants joined on the very first day of training.

The active participation in the training was measured by the number of employees who completed more than 55% of the challenges and interacted regularly, achieving an enhancement in each phase, both in the number of new participants and in the intensity of their engagement, as indicated by the time spent. With the research conducted with the employees, most of them affirmed to invest up to 2h in the training, with an average of 16h/person. This surpasses the average invested time by Brazilians in corporate training, that by the end of the project was 15h, including obligatory activities (Associação Brasileira de Treinamento e Desenvolvimento (ABTD), 2019).

A total of 25 participants achieved the highest engagement criteria calculated for the training, which was to finish 15 of the proposed challenges. Considering all participants, a total of 1.585 challenges were completed, with a number of attempts (failed or aborted) 4x higher. Throughout the training, we had an average of 10 attempts per person.

Besides the activities, 22 bulletins with informative content were produced, with a total of 106 pages, that received 2.058 views during the 2 months of the training. Another highlight of engagement was the reaction rate, in other words, the time between the launch of a news challenge and the first concluded attempt. It is considered one of the main performance indicators for online asynchronous training, the achieved rate was 78%.

Discussions

While the data collected shows participation from all ages engaging in the game, and no further data was collected about each participant's continuity, Hypothesis 1 was confirmed in this research. The proportion of “older users” increased slightly from 49% in the first survey to 58% in the final one, two months later. These results could be explained by other reasons, nevertheless, as a higher disposition among older users to participate in more surveys in general, as the younger may prefer to only engage in the games; or it can be associated with younger users engaging fastly in the training, so there were more of them on the first survey, which was not true on the second one.

Hypothesis 2 is also validated in this research. According to the developer, the interest of the employees was proven through the 2,058 visits on the information brochures and the comic book pages, which did not constitute part of the game itself - in other words, people did not get points from accessing it - and were not obligatory for the engagement with the game. Considering that during the two months only 462 people were playing, it is possible to assume that each person has visited almost 5 contents that were not crucial to their participation in the game.

The authors believe that this engagement is linked to the developers desire to make the game inclusive and accessible to all employees, regardless of their functions and formal education. In this context, there w no login required, allowing subcontracted to participate, and even cleaning and maintenance staff - functions that are not directly linked to the companies' purpose, were encouraged to engage.

This decision had severe implications for the data, as it was not possible to track each participant's continuity. However, it proved effective, as one of the prize winners was an air conditioning maintenance professional, and the data presented showed that participants from

all educational backgrounds were involved in the game. This is the first evidence for Hypothesis 3 validation.

To gain a clearer understanding of the participants' demographics and identify specific age-related patterns or trends, both surveys included an age question, with the results presented in Figure 1 above. It can be observed that 72% of the participants are between 20 and 39 years old. To support the proposed hypothesis, the average age of participants was calculated, resulting in 34 years (**Figure 2**). For this study, participants up to 34 years are classified as "younger users", while those aged over 34 are referred to as "older users," following the terminology proposed by Koivisto & Hamari (2014).

Beyond that, as there was no login, the developer had access only to the names of the participants who decided to identify themselves to try to win the phases' prizes, and the company's team only had access to the names of the winners, enabling them to identify their function within the company and distribute the prizes. Nevertheless, some information could also be deduced from the survey, crossing data that were known to the authors. For example, 8% of respondents are from Company 4, which is located in a northern state of Brazil, while most workers are located on the South and Southeast. That data crossing shows participation was widely distributed around the country, which confirms Hypothesis 3 to be true. Table 2 summarizes the hypothesis results.

Table 2 - Summary of the hypothesis result

Hypothesis	Result
Older users tend to maintain their level of engagement more easily than younger users.	Validated
Gamified training can encourage employees to take more interest in the topic and seek knowledge from other sources.	Validated
The accessibility and flexibility of the digital format of gamified training are crucial factors for engagement, especially in companies with geographically dispersed employees or those with different work profiles (e.g., varied shifts, remote work).	Validated

Source: Authors, 2025.

Conclusions

This study evaluated the effectiveness of a gamified training program in increasing employee engagement and accessibility at a Brazilian multinational company. The research involved 462 participants from six companies. The results revealed that, although most participants were between 20 and 39 years old, older employees demonstrated sustained

engagement over the two-month period. The gamified approach successfully sparked interest in decarbonization and sustainability, as evidenced by participants who sought additional information in parallel with the training. Additionally, the digital format, designed to be inclusive and accessible, proved crucial for engagement, particularly among geographically dispersed employees and those with diverse job profiles. Overall, the study demonstrates the potential of gamified training to create more engaging and effective corporate learning experiences, promoting a more informed and committed workforce.

Main contributions

The research highlighted that gamification can be an effective tool for increasing employee engagement in corporate training, regardless of age or job profile.

The digital format of gamified training was crucial to its success, particularly in a multinational company with geographically dispersed employees and diverse job profiles.

The study demonstrated that gamification could overcome some of the traditional barriers to corporate training, including a lack of time and resistance to mandatory activities.

The research suggests that gamification can be a powerful tool for promoting a culture of continuous learning within organizations. By making learning more engaging and accessible, gamification can encourage employees to adopt a growth mindset, constantly seeking new information and skills.

The research demonstrated that gamification can be a practical approach to increasing the engagement, accessibility, and effectiveness of corporate training. By integrating game elements, gamification not only makes learning more engaging but also fosters a culture of continuous and collaborative learning, which is essential for navigating the challenges of the modern world.

Future work

A study is suggested to evaluate the effectiveness of gamification in training, comparing it with traditional methods in a specific subject area. The analysis must consider participant engagement, knowledge retention, and performance, offering insights into how game elements can improve the learning experience.

The authors suggest analyzing how education level and length of service at the company affect employee engagement and learning ability, seeking to identify patterns that help create more effective and inclusive development strategies. This promotes a work environment

focused on continuous growth and utilizes gamification as a tool for engagement in other activities as well.

Another idea is to analyze the level of engagement with sustainability among individuals from different fields of study, seeking to understand whether interest is widespread or stronger in professions directly related to the topic. The research may identify patterns that help organizations promote sustainability more effectively, enabling them to adapt engagement strategies for different professional groups.

Another possible area of research could investigate the relationship between employees' level of education and their interest in gamification at work, seeking to identify whether academic background influences receptivity to learning approaches that incorporate game elements. This could provide insights into how to adapt gamification strategies to meet the different needs of employees, promoting a more engaging and motivating work environment.

It is also suggested that we investigate whether gamified training is more appealing to people who already play games regularly or whether it is equally effective for those without this habit, seeking to identify how familiarity with games influences receptivity to gamification. This will offer insights into adapting strategies and ensuring greater engagement among different participant profiles.

Another possibility is to investigate whether collaborative dynamics enhance the benefits of gamification and are essential for participant engagement, in order to identify how interaction and cooperation affect the effectiveness of gamification. This investigation could offer insights into the importance of integrating collaboration into gamification strategies to create more engaging and effective experiences.

As a final suggestion for future work, one could analyze the difficulties of adhering to non-mandatory training in companies and investigate whether external or internal pressure influences motivation for learning. This would enable the identification of strategies to increase voluntary participation, promoting a balance between autonomy and effective incentives, and providing insights to create a culture of continuous learning without relying exclusively on coercive measures.

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