Gamification and sustainable tourism: analysing the educational potential of Find the Seasouls for new generations

Francisca J. Sánchez-Sánchez and Ana M. Sánchez-Sánchez

Abstract

Purpose – *This article analyses Find the Seasouls, a video game created by Turismo de Canarias on the Roblox platform, as an innovative tool to promote sustainable tourism among the Alpha and Z generations. It is proposed to interpret it not only as a promotional action but also as an educational experience that contributes to forming more conscious future tourists through playful, emotional and collaborative dynamics.*

Design/methodology/approach – *Through a theoretical-conceptual approach, the Stimulus–Organism–Response (S-O-R) model is applied to examine how the game's stimuli (environmental narrative, ecological challenges and social interactions) generate cognitive and emotional responses in users. The analysis is based on the narrative, ecological and participatory design of the video game, in relation to theories of gamification, situated learning and environmental education.*

Findings – *The study reveals that Find the Seasouls can foster learning, environmental empathy and collective engagement, stimulating pro-environmental attitudes and sustainable behavioural intentions, reinforcing the construction of the tourist as an agent of change and fostering digital communities linked to real destinations.*

Originality/value – *This paper offers an interdisciplinary approach between tourism, sustainability and video games. It provides a novel theoretical basis for investigating the educational and behavioural impact of gamified experiences applied to responsible tourism.*

Keywords *Sustainability, Gamification, Environmental education, S-O-R model, Generation Z, Generation alpha*

Paper type *Conceptual paper*

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1. Introduction

Tourism, one of the main global economic activities, has undergone profound transformations in the past decades, thanks to the integration of digital technologies (Pencarelli, 2020). Among these innovations, gamification has emerged as a key strategy to enrich the tourism experience, allowing travellers to interact in a playful and meaningful way with their environment (Pasca *et al*., 2021; Xu *et al*., 2014). This technique incorporates game-like elements (rewards, challenges and competition) in non-game contexts to stimulate participation and engagement (Pasca *et al*., 2021). Its potential lies not only in entertainment but also in its ability to promote environmental education and sustainable tourism (Xu *et al*., 2017).

The rise of interactive video games and mobile apps has generated new forms of tourism that transcend traditional experiences. Cases such as Pokémon GO have shown how augmented reality can transform urban spaces into dynamic tourist scenarios, motivating the exploration of less-visited places (Hsiao and Tang, 2021; Woods, 2021). Similarly, geocaching (an activity that combines GPS and exploration) has fostered ecotourism and rural tourism through mobile technologies (Machado, 2021; Prakasa and Emanuel, 2019). Evidence shows that game-based

Received 23 June 2025
Revised 26 September 2025
Accepted 13 October 2025

applications with geocaching can generate behavioural changes in participants by promoting conscious exploration of the environment (Machado, 2021). In addition to these classic examples, other studies have explored applications of gamification in tourism, highlighting its educational and environmental awareness potential. Advergames, such as Ireland Town, allow users to virtually explore destinations and receive rewards, encouraging participation and experiential learning (Correa and Kitano, 2015; Sigala, 2015a). Serious games, such as Eco or World Rescue, combine entertainment and sustainability awareness, promoting ecological awareness and responsible attitudes (Senka *et al*., 2024; Escudeiro and Campos, 2023). Other strategies include integrating brands into existing games or using popular characters to link educational and tourism content, demonstrating that gamified experiences can generate cognitive, emotional and behavioural changes in participants (Sigala, 2015a; Xu *et al*., 2014; Afshar *et al*., 2004). These practices have shown the potential of gamification to attract younger and digitised tourist profiles, while strengthening environmental awareness (Yolthasart *et al*., 2024; Senka *et al*., 2024; Longo and Faraci, 2023; Escudeiro and Campos, 2023).

In this framework, sustainability has been consolidated as a strategic axis of contemporary tourism. Empirical studies have shown that gamification increases tourist engagement and reinforces sustainable attitudes (see, for example, Yolthasart *et al*., 2024; Xu *et al*., 2017). In the face of current environmental and social challenges, educational video games stand out as effective digital tools to raise awareness of the impact of human activities on ecosystems and communities (Senka *et al*., 2024; Escudeiro and Campos, 2023). Some of these recreational resources integrate environmental content in an interactive and attractive way, favouring education in sustainability and influencing attitudes and behaviours (Larreina-Morales and Gunella, 2023; Janakiraman, 2020). However, effective environmental education is not limited to informing but must emotionally engage the tourist, encouraging them to take an active role in the conservation of the environment (Viñals *et al*., 2021; Sandell, 2016; Egger and Bulencea, 2015; Weaver, 2001). In this sense, gamification, with its narrative and interactive dynamics, is presented as an innovative means to connect with younger generations, who are especially receptive to digital learning (Longo and Faraci, 2023; Corbisiero *et al*., 2022; Tussyadiah *et al*., 2017).

Despite growing interest in gamification applied to tourism, the literature still has some limitations. Firstly, most studies have focused on analysing gamified experiences from a marketing or consumer behaviour perspective (Chopdar and Balakrishnan, 2020; Tussyadiah *et al*., 2017), while there is little research that explicitly evaluates the educational role of video games in promoting sustainable tourism. Secondly, while there are studies that explore the potential of gamification to promote environmental awareness (Escudeiro and Campos, 2023; Xu *et al*., 2017), few have examined how these dynamics affect the attitudes and behaviours of younger generations, especially in real tourism contexts. Finally, empirical evidence remains limited with regard to specific cases promoted by tourist destinations, which restricts the generalisation of results and highlights the need for studies focused on pioneering initiatives.

With the evolution of tourism towards more hybrid models, where interaction with destinations occurs in both physical and virtual spaces, new strategies are emerging aimed at promoting sustainability values among travellers of the future. An outstanding example is Find the Seasouls, the first video game developed by a European tourist destination (Canary Islands) on the Roblox platform, which aims to raise awareness about biodiversity and environmental sustainability through fun activities. This initiative combines entertainment and environmental education to connect with the Z and Alpha generations, digitally competent and socially aware profiles with great potential to drive responsible tourism (Mavrin *et al*., 2024; Skinner *et al*., 2018). Through an immersive experience, the game allows users to virtually explore the archipelago, discover its biodiversity and promote favourable attitudes towards environmental conservation. From a theoretical perspective, gamification is based on the Stimulus–Organism–Response (S-O-R) model (Mehrabian and Russell, 1974; Eroglu *et al*., 2001), which is widely used in digital marketing, tourism and gamification research (Chopdar and Balakrishnan, 2020; Su *et al*., 2020;

Triantoro *et al*., 2019). According to this model, stimuli from the digital environment (such as environmental narratives, ecological missions or social interaction) generate emotional and cognitive responses that influence the user's behavioural intention. The S-O-R model is particularly suitable for this study because it allows us to understand how these stimuli trigger internal processes in players and how these processes can translate into behaviours favourable to responsible tourism. Furthermore, its previous application in research on tourism and digital gamification (Su *et al*., 2020; Triantoro *et al*., 2019) confirms the validity of the approach and makes it a solid framework for analysing the relationship between immersive experiences and attitudinal changes.

The main objective of this study is to analyse the potential of gamification as an educational tool for promoting sustainable tourism, using Find the Seasouls as a case study. Based on the S-O-R model, we examine design strategies aimed at Generations Z and Alpha and their ability to promote responsible tourism experiences, thus helping to fill the gap in the literature on educational video games applied to sustainable tourism. More specifically, three research questions are posed: 1. How can the gamification dynamics present in Find the Seasouls contribute to environmental education and awareness of sustainable tourism? 2. How does the game design, based on the S-O-R model, influence the emotional and cognitive responses of Generations Z and Alpha? and 3. What educational and practical implications might the incorporation of video games have for sustainability-oriented tourism destination strategies?

2. Theoretical framework

2.1 Gamification in tourism

Gamification consists of applying game elements in non-game contexts in order to motivate and engage users. Its use has been extended to multiple fields such as education (Nicolalde *et al*., 2025; Zeybek and Saygı, 2024; Christopoulos and Mystakidis, 2023), sustainability (Soares *et al*., 2024; Boncu *et al*., 2022), health (van Gaalen *et al*., 2021; Al-Rayes *et al*., 2022), marketing and corporate training (Vashisht, 2023; Bhutani and Behl, 2023; Rocha *et al*., 2020), and most notably, tourism (Pradhan *et al*., 2025; Wei *et al*., 2023; Pasca *et al*., 2021; Xu *et al*., 2021). In this sector, gamification promotes interaction with the environment and understanding of cultural and natural heritage (Chauhan and Karthikeyan, 2025; la Cuadra *et al*., 2020; Xu *et al*., 2017). According to Xu (2012), it can enhance the social and emotional dimensions of the tourism experience, making it more immersive. Through interactive routes, digital rewards and mobile apps, it transforms travel into a playful and educational experience, especially attractive to young and digitised tourists (Yolthasart *et al*., 2024; Longo and Faraci, 2023; Sigala, 2015b).

One of its most visible applications in tourism is in destination marketing. Celtek (2010) distinguishes three approaches: advergames, the integration of brands into existing video games and the insertion of advertising within games. Advergames, such as Ireland Town (promoted by Ireland's National Tourism Development Authority), allow virtual exploration of destinations and winning real prizes (Correa and Kitano, 2015; Sigala, 2015a; Celtek, 2010). In the second approach, brands such as Starwood or Pizza Hut integrated into platforms such as Foursquare through dynamic check-ins (Xu *et al*., 2014). The third strategy includes visual advertisements in video games, which increase brand recall. According to Celtek (2010), those who interact with brands in virtual environments tend to consume them later, and Afshar *et al*. (2004) claim that mobile advergames are less intrusive than traditional advertising. Moreover, their accessibility fosters a continuous connection between tourists and brands (Sigala, 2015b).

Among the most paradigmatic cases is Pokémon GO, which, since its launch in 2016, has transformed interaction with urban space through augmented reality, encouraging visits to public spaces and shops (Hsiao and Tang, 2021; Woods, 2021; Williams and Slak-Valek, 2019), redefining everyday places as cultural spaces (Leorke, 2019). Geocaching also stands out, bringing together active tourism and GPS technology to explore rural and natural areas, promoting a more sustainable and off-the-beaten-track tourism (Machado, 2021; Prakasa and

Emanuel, 2019; Skinner *et al*., 2018). In addition to these experiences, serious games combine entertainment and awareness-raising. Games such as World Rescue (UNESCO) address global challenges such as climate change in real contexts, while Eco (Strange Loop Games) simulates sustainable resource management in a virtual civilisation. Both promote ecological awareness and integrate educational and cultural values into the tourism experience (Senka *et al*., 2024; Escudeiro and Campos, 2023). In parallel, the development of immersive technologies has changed the expectations of tourists, who now seek more personalised, multi-sensory and participatory experiences. Tools such as virtual reality (Gretzel and Jamal, 2009) and augmented reality (Yovcheva *et al*., 2013) facilitate this immersion. Neuhofer *et al*. (2012) introduce the concept of "technology-enhanced tourism experiences", where digital resources enable the co-creation of meaningful experiences. Examples of their application include Play NZ in New Zealand, which introduces geocaching in nature parks or Travel Game in Estonia, which promotes sustainable tourism through interactive challenges.

Table 1 presents a classification of different types of digital games applied to tourism.

However, despite the observed benefits, the literature also points out that gamification can produce contradictory results or even undesirable effects. Some studies show that, in certain contexts, an overabundance of rewards, excessive competitiveness or a lack of personalisation can diminish participants' intrinsic motivation and reduce educational effectiveness (Mekler *et al*., 2017; Seaborn and Fels, 2015; Hamari *et al*., 2014). Furthermore, user response may vary according to demographic and cultural profile or level of familiarity with technology, which limits the generalisation of findings (Dichev and Dicheva, 2017; Xu, 2012). This evidence highlights the importance of carefully designing gamified experiences, considering both educational objectives and the characteristics of the target audience and justifies the need for studies focused on real tourism contexts and innovative initiatives.

2.2 Sustainable tourism and environmental education in digital environments

Sustainability has been consolidated as a fundamental pillar of contemporary tourism, in response to global challenges such as climate change, biodiversity loss or the overexploitation of natural resources (Baloch *et al*., 2023). In this context, it is essential to promote greater environmental awareness among travellers, especially in ecologically and socio-culturally sensitive destinations (del Turisme, 2018), and to encourage lasting commitments from all stakeholders (Šimková *et al*., 2023). Environmental education is key to fostering responsible behaviour, generating an emotional and cognitive link between tourists and the conservation of the environment (Weaver, 2001) and should also involve host communities, whose participation is crucial for the sustainability of the destination (Moscardo, 2008).

Digital technology has expanded the possibilities to reinforce this educational approach (Pencarelli, 2020; Edgell, 2019), offering tools such as simulators, augmented reality, interactive platforms and video games that transform the communication of environmental content into more immersive and engaging experiences (Zhang *et al*., 2025; Allam *et al*., 2022). This experiential education favours a deeper internalisation of sustainable values (Lozano-Jiménez *et al*., 2021; Tussyadiah *et al*., 2017). In this scenario, gamification emerges as an effective strategy to educate by entertaining. The incorporation of game mechanics, challenges or rewards drives active and emotionally meaningful learning, enhancing the cognitive engagement of participants (Pradhan *et al*., 2025; Wei *et al*., 2023). Moreover, this approach contributes to fostering sustainable behaviours through interactive resources (Pasca *et al*., 2021; Xu *et al*., 2021). According to Xu *et al*. (2017), these dynamics stimulate interest and facilitate understanding of sustainability concepts. Immersive technologies also make it possible to reach wider and more diverse audiences, including segments traditionally less accessible through conventional media (Oncioiu and Priescu, 2022). Younger generations, digital natives, are highly receptive to visual and interactive formats, which makes these tools strategic resources for raising awareness (Skinner *et al*., 2018). Educational video games and

Table 1 Digital games applied to tourism

Type of game	*Description*	*Design objectives*	*Example/Tourist application*	*Recommended reference/ Development company*
Personalised Advergame	Ad hoc game developed to promote a tourist destination	Spread destination awareness, encourage virtual exploration and offer token rewards	Ireland Town–Facebook game about attractions in Ireland	Correa and Kitano (2015), Celtek (2010), Sigala (2015a)
Educational Advergame	Interactive game with a sustainable or cultural approach	Promoting responsible or educational tourism through play	TripSketch Green Traveller–Green and Sustainable Tourism	Sigala (2015a)
Commercial game with a real-life setting	Commercial video game set in real places, not designed for tourism, but exploited by public campaigns	Enhancing local heritage, attracting visitors to game scenes	Assassin's Creed–Indirect promotion of cities such as Florence, Venice, Paris, Cairo	Ubisoft (2007-ongoing)
Geolocation/ Augmented reality	Location-based mobile gaming or AR linking physical and digital space	Activating the territory, encouraging exploration, attracting tourists to specific sites	Pokémon GO–Increased tourist flows in urban and heritage areas	Woods (2021), Hsiao and Tang (2021)
Game with brand integration into existing environment	Inclusion of tourism branding in popular games (e.g. as challenges or rewards)	Increase brand visibility, promote consumption linked to the territory	Foursquare + Starwood/Pizza Hut–Tourist Check-ins and Social Mechanics	Xu *et al*. (2014), Celtek (2010)
Serious game	Educational game with narrative focused on real issues affecting tourism (sustainability, culture, etc.)	Awareness raising, experiential learning, promoting responsible values	Eco–Collaborative environmental simulation game/World Rescue–Tourism and sustainable development/ Serious games in nature parks–Educational tools to promote biodiversity awareness and conservation	Sawyer (2007), UNESCO; Strange Loop Games, Coghlan and Carter (2020)
Quiz game and rewards	Quiz-like game dynamics with incentives or destination-linked promotions	Increasing destination awareness and brand interaction	Australian Tourism Radio Campaign Quiz–Australian Tourism Radio Campaign Quiz–Game to promote Australia	Sigala (2015a)
Gamification based on popular characters	Use of media personalities to facilitate identification with the destination	Leveraging symbolic value to capture attention and viralise content	Visit Japan with Hello Kitty–Mobile game with character as a tourist ambassador	Sigala (2015a)
Banners or in-game advertising	Insertion of visual elements within existing games (posters, messages, branded objects)	Generating brand association without interrupting the gaming experience	Games with contextual tourist banners within the game environment	Afshar *et al*. (2004), Celtek (2010)

Source(s): Authors' own source

technological immersion boost youth engagement, essential for future tourism habits (Tussyadiah *et al*., 2017). Immersive digital experiences generate attention, emotional connection and sustainable behaviours, especially among generations Z and Alpha (Robaina-Calderín *et al*., 2023). Digital environments not only transmit knowledge in an attractive way but also align leisure and sustainability, involving the tourist as an active agent of change (Rodrigues *et al*., 2023; Katsoni and Spyriadis, 2020).

However, the literature also highlights limitations and contradictory findings. Sometimes gamification fails to bring about lasting behavioural change, especially if the challenges are perceived as superficial or irrelevant (Dichev and Dicheva, 2017; van Roy and Zaman, 2017).

Digital environmental education may be insufficient if it does not encourage active reflection on the experience, limiting the internalisation of sustainable values (Ferdian and Chayanuvat, 2017; Kolb, 2014). From the perspective of Kolb's Experiential Learning (1984), meaningful learning requires users to transform lived experience into knowledge through reflection, and gamified environments alone do not guarantee this process. Similarly, the S-O-R model (Mehrabian and Russell, 1974; Eroglu *et al*., 2001) emphasises that digital stimuli must generate effective emotional and cognitive responses; otherwise, the effects on sustainable attitudes and behaviours may be limited. Some studies even show divergent results: while certain gamification experiences have enhanced environmental awareness and sustainable learning (Xu *et al*., 2017; Mosca *et al*., 2024), other studies point to reduced or temporary effectiveness, especially when game dynamics are perceived as trivial or disconnected from the reality of the destination (Dichev and Dicheva, 2017; Ferdian and Chayanuvat, 2017). This heterogeneity of findings highlights the need for more robust and comparative assessments. Added to this are potential ethical and strategic risks. If the dynamics are applied superficially, there is a threat of "gamified greenwashing", in which an image of sustainability is conveyed that is more linked to marketing than to real behavioural changes (Jamal *et al*., 2011). This risk calls for critical and responsible use of educational technology in tourism.

These considerations show that, although immersive digital environments and gamification have great potential for environmental education in tourism, their implementation requires theoretically grounded design and rigorous evaluation (Cao *et al*., 2023). Educational technology applied to sustainable tourism represents a pedagogical innovation with great transformative capacity, provided that it is combined with a reflective, critical and theoretically supported approach to generate significant and lasting behavioural changes among tourists (Jamal *et al*., 2011).

2.3 Generation Z and Alpha as a target audience

Generations Z (born between 1997 and 2012) and Alpha (since 2013) have grown up immersed in digital environments, becoming natural users of social media, interactive platforms and video games (Yahya and Mammadzada, 2024; Bonds, 2019). This approach allows us to clearly identify the audience for which the Find the Seasouls game has been designed, and how its characteristics influence the reception of educational content and gamified experiences focused on sustainability. Generations Z and Alpha value interactivity, personalisation and immediacy, while showing a strong interest in the environment and social justice (Hasim and Nazri, 2025; Yadav, 2025; Restrepo, 2025). Find the Seasouls takes advantage of these preferences to offer gamified dynamics that not only entertain but also facilitate the internalisation of responsible values and sustainable behaviours. In this way, a direct link is established between user characteristics and the educational and environmental awareness objectives that digital technology can enhance.

In the tourism context, video games respond effectively to these preferences by offering participatory and emotionally meaningful experiences (Mavrin *et al*., 2024; Pricope Vancia *et al*., 2023; Corbisiero *et al*., 2022). These tools allow tourists to become active players, make decisions and take consequences in gamified environments, satisfying psychological needs such as exploration, achievement and connection with destinations (Xu *et al*., 2017, 2021; Hamari *et al*., 2014). Moreover, the sensitivity of these generations towards sustainability can be channelled through video games with ecological content, which foster environmental awareness in a playful way (Senka *et al*., 2024; Escudeiro and Campos, 2023). The immersive narrative and gameplay elements (missions, rewards and levels) enhance meaningful and experiential learning (Necula *et al*., 2024; Damaševičius and Sidekerskienė, 2024; Fernández Galeote and Hamari, 2021). The social nature of video games favours the creation of communities around shared values, reinforcing the emotional bond with destinations (El Afi and Ouiddad, 2021; Khajeheian and Kolli, 2020; Sigala, 2015b).

However, the effectiveness of these strategies depends on participants actively reflecting on the experience (Kolb, 1984). Without this reflection, game dynamics could generate superficial

engagement, limiting the consolidation of sustainable learning and attitudes. Thus, the characteristics of Generations Z and Alpha are decisive in enabling gamified strategies to reach their transformative potential, effectively combining entertainment, education and environmental awareness.

2.4 S-O-R model

The S-O-R model (Mehrabian and Russell, 1974; Eroglu *et al*., 2001) has established itself as a key theoretical framework for understanding how environmental stimuli (S) influence an individual's internal states (O) and, in turn, their behaviour (*R*). This model has been widely used in marketing to explain how contextual elements, such as the ambience of a shop or a tourist experience, affect consumer emotions and decisions (Kumar *et al*., 2025; Baber and Baber, 2023; Chin and Wong, 2022).

Rather than acting directly on behaviour, stimuli influence through a process mediated by the internal state of the organism. In the field of information systems, technological attributes have been found to influence user perceptions, emotions and decisions (Benlian, 2015). These digital stimuli include visual design, multimedia richness, content information (Liu *et al*., 2019), interactivity, social presence and overall visual appeal (Chopdar and Balakrishnan, 2020; Zheng *et al*., 2019). Regarding the organismic component, the identified mediating variables encompass cognitive and affective responses (Triantoro *et al*., 2019), positive or negative emotions (Su *et al*., 2020) and hedonic or utilitarian motivations (Dabbous and Barakat, 2020), providing insight into how the psychological state of the user is shaped.

Over the last decade, the S-O-R model has been applied to specific contexts in information systems, such as virtual experiences (Zhao *et al*., 2020), social commerce (Liu *et al*., 2019; Kamboj *et al*., 2018; Fu *et al*., 2018), mobile commerce (Chopdar and Balakrishnan, 2020; Zheng *et al*., 2019) and gamification (Triantoro *et al*., 2019). It has also been useful for analysing tourism behaviour, demonstrating that positive emotions during travel can foster responsible attitudes and compliance with social norms (Su *et al*., 2020).

In tourism video games, the S-O-R model provides a suitable framework to analyse how game design influences the perception, emotion and behaviour of tourists, especially younger generations such as Z and Alpha (Wang *et al*., 2025; Qiu *et al*., 2024; Bai *et al*., 2024; Shuhua *et al*., 2024). Stimuli (S) can include immersive graphics, ecological missions, rewards, immersive narrative or social interaction. These elements affect the internal state of the organism (O), generating cognitive responses (such as perception of sustainability or learning about the destination) and emotional responses (enthusiasm, empathy or curiosity). These responses translate into behaviours (*R*) such as intention to visit the destination, pro-environmental attitudes, loyalty or positive recommendations on social networks.

3. Methodology

This study adopts an exploratory and propositional approach based on the theoretical design of the Find the Seasouls conceptual prototype. The methodology is based on a targeted literature review that articulates three interrelated axes: gamification in tourism, digital environmental education and the psychosocial characteristics of Generations Z and Alpha as sustainable tourism audiences. The purpose is not to empirically validate an existing product but to build a theoretical proposal for a playful-educational experience coherent with the S-O-R model. This model guides the translation of psychological concepts into gamified elements (missions, rewards and interactive narratives) capable of generating desired internal responses, such as environmental awareness, emotional involvement and critical reflection, which favour responsible tourism behaviour.

Conceptual design takes the form of an analysis of video game materials, including game mechanics, narrative, visual resources and interactive elements, following a *theory-informed*

design approach, which is understood as a process in which principles and findings from academic literature are converted into concrete design decisions. Thus, concepts from environmental psychology, digital education and gamification are translated into missions, reward dynamics and interactive narratives that seek to trigger specific cognitive and emotional responses. In this way, the theory is not limited to being a frame of reference, but operates as a direct guide in the configuration of game elements. From this perspective, the findings do not seek to generalise empirical results but rather to provide a solid and replicable theoretical framework to serve as a basis for future research and practical experimentation with prototypes or field studies. The main implication of this conceptual approach is that the findings focus on the plausibility of gamification and learning mechanisms, rather than their statistical validation. It is recognised that this limits the possibility of directly assessing the impact on user behaviour and restricts the generalisability of the results. However, it allows for the formulation of hypotheses and design principles to guide future empirical studies.

Based on this framework, a theory-informed design is proposed, which hypothetically guides the selection of mechanics, dynamics and narratives aligned with educational and behavioural transformation objectives. This framework can be applied in further research through video game testing, controlled experiments or surveys with real participants, assessing engagement, learning and attitudes towards sustainability. In this sense, the study does not constitute a technical or operational development of the video game, but proposes a replicable theoretical model adjusted to the digital and cultural competences of young generations. In this way, it contributes to integrating behavioural theory, digital experience design and environmental education as innovative tools to move towards more sustainable tourism.

4. Applying the S-O-R model to find the Seasouls in the context of sustainable tourism

4.1 Find the Seasouls: innovation in sustainable tourism through gamification

Find the Seasouls is the first video game developed by a European tourist destination on the Roblox platform, conceived as a playful and educational tool to promote environmental awareness among new generations of travellers. Promoted by the Canary Islands (Spain) and subsidised by the European Regional Development Fund (Feder), the project represents an innovative commitment to connect with young audiences through popular and creative digital media. The video game transports the player to a virtual recreation of the Canary Islands archipelago, allowing them to explore its landscapes while learning about the local biodiversity and culture. Launched on 20 December 2024, in less than a month, it surpassed one million visits and obtained a 96% positive rating. Its official website (https://www.findtheseasouls.com/en/) links to the destination's tourism portal, thus integrating virtual experience and real promotion.

Leveraging the potential of Roblox, a platform with more than 80 million daily active users, especially among the Z and Alpha generations, the video game seeks to bridge the gap between the physical and the digital. In this way, it offers a complementary experience for future tourists who already interact regularly in virtual environments. In the game, users roam the islands in search of sea creatures called Seasouls, inspired by real species from the marine environment. In total, there are 160 creatures, designed with the advice of oceanographer Cristina Fernández Gil to ensure their biological fidelity. Through their search, players learn about the habitat, behaviour and singularities of these species. The game environment includes more than one hundred representative spaces of the archipelago, both marine and terrestrial. The mechanics begin with a parachute landing on an island, from where players begin their exploration, collect items such as limpets and progress through their missions. Designed specifically for a young audience, Find the Seasouls combines entertainment with environmental education, promoting values of sustainability and respect for the environment. This proposal reinforces the Canary Islands' commitment to responsible tourism, using the language of video games as a vehicle for educational and cultural transformation.

4.2 Application of the S-O-R model

The S-O-R model is especially relevant in experiences such as Find the Seasouls, where playful elements are combined with sustainable narratives, generating an emotional and sensory experience that goes beyond entertainment. Through eco-challenges or heritage-focused missions, game stimuli not only capture attention but also promote environmental awareness and an emotional connection to the destination, essential to foster more responsible tourism (Chen *et al*., 2024; Lee *et al*., 2021). The S-O-R model has proven to be effective in analysing how immersive digital environments, such as apps, augmented reality and educational video games, influence user behaviour (Erensoy *et al*., 2024; Kalaiarasan *et al*., 2024; Qiu *et al*., 2024; Bai *et al*., 2024). Its application to the design of tourism video games allows for capturing the attention of young people and shaping attitudes towards conscious tourism (Xu *et al*., 2017, 2021; Coghlan and Carter, 2020).

This study adopts the S-O-R model as a theoretical framework to analyse the case of Find the Seasouls, a tourism video game that employs an immersive, narrative and ecologically engaged approach to promote sustainable tourism. Based on this model, the game seeks to influence user behaviours through stimuli that activate cognitive and emotional processes, inducing responsible behavioural responses. The structure of the proposed model is detailed below:

Stimulus (S): Experiential and ecological design of the video game.

1. Ecological narrative: The storyline revolves around the search for the "souls of the sea", symbols of environmental loss caused by human activity. This didactic narrative connects the player emotionally with issues such as ocean pollution and biodiversity loss, aligning with the situated learning proposed by Gee (2003) and Squire (2005). Recent research highlights that digital narratives promote climate engagement, environmental empathy and prosocial values (Fernández Galeote and Hamari, 2021; Necula *et al*., 2024; Damaševičius and Sidekerskienė, 2024).

2. Game mechanics: Missions such as waste collection or restoration of degraded areas encourage sustainable decisions. The use of rewards and achievements encourages active participation, stimulating intrinsic motivation and learning (Xu *et al*., 2017; Peng *et al*., 2012). These dynamics, already validated in tourism contexts, increase engagement and environmental awareness (Chauhan and Karthikeyan, 2025; la Cuadra *et al*., 2020).

3. Immersive visual and sound environment: Scenarios inspired by real landscapes, together with natural sound effects, generate an atmosphere of presence and connection with nature. This sensory stimulation encourages key emotional responses for ecological engagement (Bamberg and Möser, 2007).

4. Social interaction: Some missions require cooperation between players, promoting belonging to a common ecological cause. Interaction strengthens bonds and creates value in digital contexts, relevant in experiential tourism (Gretzel *et al*., 2006). In addition, social elements such as teamwork or visibility of achievements increase engagement (Hamari *et al*., 2014).

Organism (O): Cognitive and emotional states of the player.

1. Learning and cognitive processes: The game design favours experiential learning, where players acquire knowledge about sustainability, biodiversity and responsible tourism in an active and immersive way. This type of learning avoids information overload and promotes meaningful understanding through interaction, exploration and problem-solving in context. In line with Gee (2003), video games can act as non-intrusive educational environments, capable of promoting valuable interpretative processes. Agreeing with Coghlan and Carter (2020) and Sawyer (2007), serious games offer an effective framework for stimulating relevant cognitive processes in natural and tourist environments.

2. Emotional responses: The combination of immersive storytelling, active participation and sensory ambience elicits emotions such as empathy, curiosity and a sense of responsibility. These emotions are fundamental to generating lasting ecological engagement, especially in generations such as Z and Alpha, characterised by high environmental sensitivity, as highlighted by Verma *et al*. (2023). These emotions not only reinforce knowledge retention but also drive the internalisation of sustainable values.

Response (R): Sustainable behaviours and attitudes.

1. Intention to visit sustainable destinations: Exposure to protected landscapes within the game functions as experiential marketing, generating positive emotions that promote a connection with nature. Scurati *et al*. (2021) underline that this immersion can motivate pro-environmental behaviours, showing that serious games influence sustainable attitudes and decisions (Madani *et al*., 2017). Thus, ecological perception affects the intention to visit sustainable destinations (Juvan and Dolnicar, 2014; Han *et al*., 2010).

2. Pro-environmental attitudes: Incorporating sustainable practices as mechanics reinforces real behaviours, such as recycling or green transport. Intense emotional experiences can translate into behavioural changes (Bamberg and Möser, 2007). Gifford and Nilsson (2014) highlight the role of emotional and social factors in these decisions, while Turaga *et al*. (2010) highlight the weight of moral motivations, which video games can activate through their narratives and ethical mechanics.

3. Viralisation and recommendation: Younger generations tend to share meaningful experiences on social networks that are aligned with their values, which favours the viralisation of video games with sustainable messages. Borges-Tiago *et al*. (2019) indicate that the desire for connection and belonging drives this participation. Social posts create value around causes (Sorensen *et al*., 2017), so peer-to-peer recommendations amplify the impact of a positive experience (Jacoby, 2002).

Find the Seasouls shows how a video game designed under the S-O-R model can effectively integrate narrative, mechanical, sensory and social stimuli to transform the cognitive and emotional states of players, promoting sustainable attitudes and behaviours in and out of the digital environment. This makes it a transformative educational tool, particularly suitable for new generations of environmentally engaged travellers.

On the other hand, various studies warn that rewards in video games and gamified systems can trivialise ethical behaviour if players focus solely on accumulating achievements or points, without internalising the underlying values (Kim and Werbach, 2016; Bogost, 2011; Zagal, 2009). This phenomenon, which some authors refer to as gamified morality, can lead to a superficial approach to sustainability, where ethical actions are performed mainly for extrinsic motivation rather than personal conviction (Zvereva *et al*., 2023; Deci and Ryan, 2013). In this sense, game-based rewards could, paradoxically, discourage critical reflection on the importance of environmental conservation if they are not properly integrated into a broader educational context. It is therefore essential that the mechanics of Find the Seasouls are accompanied by reflection, feedback and discussion activities, so that players understand the real impact of their decisions and meaningful ethical learning is encouraged (Klock *et al*., 2023; Almeida *et al*., 2023). Likewise, incorporating moral dilemmas, contextualised narratives and interaction metrics that promote empathy and curiosity can help the gamified experience transcend the simple pursuit of rewards and effectively contribute to the internalisation of sustainable values (Deci and Ryan, 2013; Zagal, 2009).

Figure 1 illustrates the proposed model, showing how the components of the S-O-R model apply to the design and experience of Find the Seasouls in the context of sustainable tourism.

To illustrate the model, a series of figures are presented below showing the practical application of the S-O-R model in the context of Find the Seasouls. Figures 2–7 provide visual evidence of different game stimuli. Each type of stimulus (ecological narrative, game mechanics, immersive

Figure 1 Application of the S-O-R model to Find the Seasouls. Source: Authors' own source

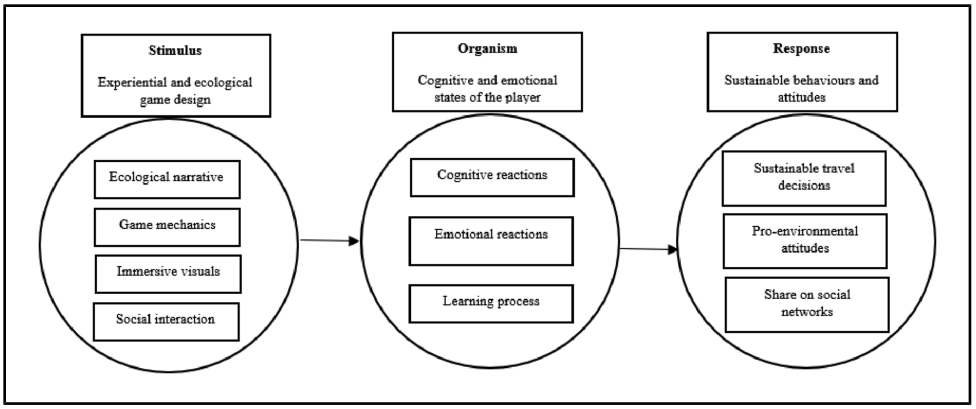

Figure 2 Example of interaction in the game with a "Seasouls", based on the marine species Catalufa (Island of Lanzarote). Source: Authors' own source

visuals and social interaction) is specifically reflected in the figures, showing how play experiences can be linked to affective and motivational (O-R) responses that reinforce the educational and sustainable goals of play. Ecological storytelling, exemplified by interaction with Seasouls based on real species such as, for example, the Catalufa (Figure 2), can promote empathy towards local ecosystems and strengthen symbolic understanding of biodiversity. Game mechanics, illustrated in sustainable missions (Figure 3) and in the individual achievement chart (Figure 7), can foster intrinsic motivation, active learning and a sense of responsibility towards sustainable behaviours. Immersive visuals, evidenced in the exploration of virtual islands, such as, for example, La Gomera (Figure 4), can arouse curiosity, attention and immersion, facilitating the understanding of diverse environmental contexts. Finally, social interaction, represented in chats, cooperative missions and shared rewards (Figures 5 and 6), can reinforce cooperation, collective motivation and group commitment to the game's objectives.

Figure 3 Example of a mission in the game. Source: Authors' own source

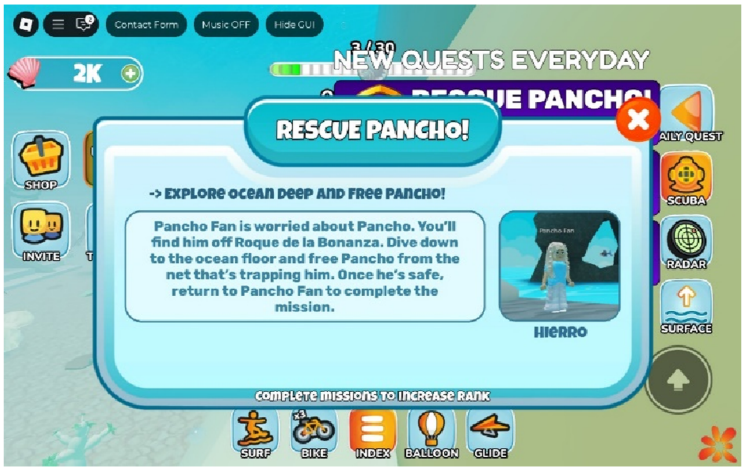

Figure 4 Example of a panoramic view of virtual islands in the game (La Gomera). Source: Authors' own source

To facilitate the visualisation of the relationship between each figure, the type of stimulus and the associated motivational responses, Table 2 is presented, which clearly and directly organises how the elements of the game are linked to the expected results in the attitude and behaviour of the players, thus establishing a bridge between the theoretical conceptualisation and the concrete experience of gamification.

5. Discussion

The development and launch of Find the Seasouls constitutes a pioneering initiative in sustainable tourism, exploring how gamified digital experiences can function as effective tools for environmental education and behavioural transformation of younger generations. The analysis of the game under the S-O-R model reveals a solid integration of environmental content, experiential design and behavioural stimulation. Find the Seasouls acts as a stimulus-rich

Figure 5 Interaction between players via chat. Source: Authors' own source

Figure 6 Example of shared rewards for completed missions. Source: Authors' own source

environment that activates cognitive and emotional processes, seeking to generate pro-environmental attitudes and actions in young users, which is consistent with previous research on the effectiveness of gamified platforms in shaping behaviour (Erensoy *et al.*, 2024; Kalaiarasan *et al.*, 2024; Xu *et al.*, 2021).

Find the Seasouls is articulated around an ecological narrative that places the player in search of sea souls lost due to environmental degradation. This emotionally charged story aims to encourage empathy and critical reflection, becoming the pedagogical axis of the game. The "souls of the sea", symbolic entities affected by human action, function as a didactic resource to address problems such as ocean pollution, overfishing and biodiversity loss. This narrative approach aligns with the situated learning advocated by Gee (2003) and Squire (2005), who highlight how meaningful stories promote cognitive engagement and deep learning. Furthermore, it is supported by recent research evidencing the transformative value of digital narratives in

Figure 7 Table of achievements and rewards. Source: Authors' own source

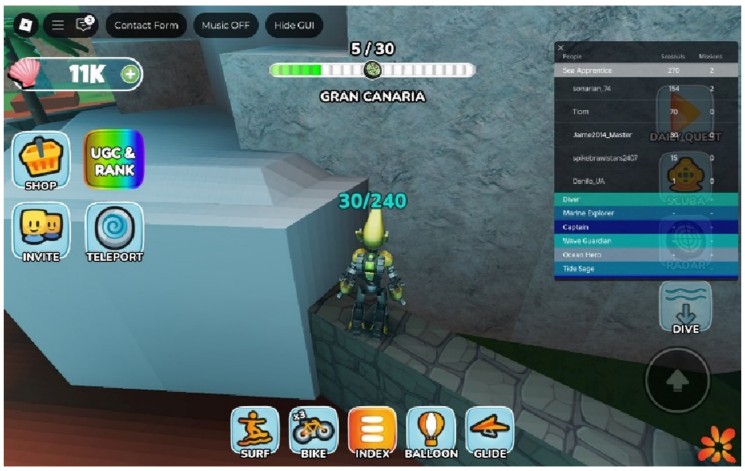

Table 2 Relationship between game figures, stimuli and motivational responses

Figure	*Component S (stimulus)*	*Description of the stimulus*	*Expected response (O-R)*
1	Ecological narrative	Seasouls based on real species	Empathy towards local ecosystems; emotional connection with nature
2	Game mechanics	Ethical and sustainable missions (waste collection, catering)	Intrinsic motivation; active learning; reinforcement of sustainable behaviours
3	Immersive visuals	Exploring virtual islands	Curiosity; interest in diverse environmental contexts; immersion
4	Social interaction	Chats and cooperative missions	Collective motivation; cooperation; social commitment
5	Social interaction	Shared rewards and group achievements	Strengthening collective commitment; social and motivational satisfaction
6	Game mechanics/ Visual reinforcement	Individual achievements table	Strengthening the sense of responsibility, self-efficacy and commitment to sustainable actions

Source(s): Authors' own source

generating environmental empathy and climate engagement (Necula *et al*., 2024; Damaševičius and Sidekerskienė, 2024; Fernández Galeote and Hamari, 2021).

The game includes more than 100 emblematic spaces of the Canary Islands and 160 unique characters inspired by real marine species, developed on a scientific basis. These elements not only inform, but also connect emotionally with players, translating abstract environmental issues into personalised missions. The sensory environment (real landscapes, marine sounds and wildlife) enhances this affective connection with nature. This immersive experience stimulates emotional responses aligned with the findings of Bamberg and Möser (2007), which underline the role of emotions in ecological engagement. The design incorporates gamified dynamics such as progressive challenges, rewards and ecological tasks that require decision-making, strengthening intrinsic motivation and meaningful learning. These motivational mechanisms coincide with those reported by Peng *et al*. (2012) and Xu *et al*. (2017) and relate to previous

experiences of tourism gamification where gamified dynamics enhance visitor engagement and environmental awareness (Chauhan and Karthikeyan, 2025; la Cuadra *et al.*, 2020).

The social dimension of the game brings a collective experience to learning. Some missions are solved collaboratively, promoting cooperation between players around common environmental goals. This structure fosters a sense of belonging to a shared cause and strengthens bonds in digital contexts, a relevant aspect in experiential and environmental tourism (Gretzel *et al*., 2006). Elements such as cooperation, friendly competition and visibility of achievements reinforce commitment and motivation, as indicated by Hamari *et al*. (2014). Find the Seasouls supports previous findings from environmental psychology on the link between immersive experiences, emotional engagement and prosocial behaviour (Bamberg and Möser, 2007) and shows the potential of educational video games to promote environmental awareness in younger generations.

Immersive visual and sound resources, together with collaborative missions and exploratory freedom, configure a multisensory environment that favours internal processing. In the S-O-R model, the Organism component refers precisely to this intermediate state where attitudes, emotions and intentions are constructed from external stimuli. In this sense, Find the Seasouls responds to the expectations of involvement and interactivity of the Z and Alpha generations, accustomed to complex and stimulating digital environments. The collaborative dimension of the game facilitates social learning and reinforces shared responsibility. As Coghlan and Carter (2020) point out, joint action and peer influence, expressed in collective goals, are key to fostering sustainable behaviours. This dynamic enhances the emotional resonance of the experience and increases the likelihood of lasting attitudinal change.

From a cognitive point of view, the game design is oriented towards experiential learning, in which players acquire knowledge about sustainability, biodiversity and responsible tourism in an active and immersive way. Rather than resorting to direct transmission of content, the environment favours understanding through interaction and problem-solving in context, avoiding information overload. In line with Gee (2003), this strategy demonstrates that video games can be powerful and non-intrusive educational spaces. Similarly, in line with Coghlan and Carter (2020), the approach adopted highlights the interpretive potential of serious games in nature tourism contexts. In line with Sawyer (2007), it also recognises the capacity of these environments to activate meaningful cognitive processes that go beyond mere entertainment.

In terms of emotional responses, the combination of immersive storytelling, active participation and sensory impact generates feelings of empathy, curiosity and a sense of responsibility. These emotions, as indicated by Verma *et al*. (2023), are essential to trigger sustained ecological engagement, especially in younger generations who already show high environmental sensitivity. Thus, the conjunction of emotional and cognitive stimuli shapes a transformative experience that facilitates the internalisation of sustainable values and increases the likelihood of persistent pro-social behaviour.

The final phase of the S-O-R model, Response, refers to the behavioural effects that emerge after the interaction between stimulus and organism. Although this study does not empirically assess behavioural changes, the theoretical approach of Find the Seasouls may foster pro-environmental attitudes among generations Z and Alpha. The combination of emotional storytelling, collaborative dynamics and symbolic rewards may contribute to consolidating values related to sustainable tourism and environmental respect. In line with Qiu *et al*. (2024) and Bai *et al*. (2024), the potential of immersive digital platforms to sensitise digital native audiences to sustainability issues is recognised.

Beyond its promotional dimension, gamification is conceived as an educational intervention that integrates emotion, interactivity and environmental values. As argued by Abusharieh *et al*. (2025) and Zheng *et al*. (2024), gamified digital tourism products have a transformative capacity to enrich the user experience and strengthen the bond with the destination. In this sense, Find the Seasouls reinforces the S-O-R model as an effective theoretical framework for the design and evaluation of

digital experiences aimed at attitudinal change, in line with the proposals of Coghlan and Carter (2020) and Bai *et al*. (2024) on the role of serious games in sustainable development.

The game simulates real natural environments and promotes responsible practices, generating an emotional bond with nature. This virtual environment functions as an experiential marketing channel that, as indicated by Scurati *et al*. (2021), can activate pro-environmental behaviours. In agreement with Madani *et al*. (2017), the impact of serious games on sustainable attitudes is confirmed. Furthermore, ecological perceptions influence the intention to visit sustainable destinations, as highlighted by Juvan and Dolnicar (2014) and Han *et al*. (2010). Game mechanics reinforce responsible behaviours such as recycling or environmental restoration, facilitating their playful internalisation. This emotional and practical integration favours the transfer of attitudes to the real world, in line with Bamberg and Möser (2007) and highlights, as Gifford and Nilsson (2014) point out, the importance of emotional, social and personal factors in ecological action. Indeed, according to Turaga *et al*. (2010), moral motivations triggered by ethical narratives outweigh rational calculation in sustainable decisions. In terms of the viralisation potential of gaming, this aligns with Borges-Tiago *et al*. (2019), who link youth digital participation to the desire for belonging and authenticity. Shared experiences can amplify the perceived value and reinforce the social impact of purposeful initiatives (Sorensen *et al*., 2017; Jacoby, 2002).

Despite these positive aspects, it is important to take a critical approach to gamification. Although playful dynamics foster empathy, curiosity and responsibility, the question arises: To what extent do players internalise these values as opposed to simply obtaining rewards? Various studies show that an overabundance of rewards, excessive competitiveness or a lack of personalisation can diminish intrinsic motivation and educational effectiveness (Mekler *et al*., 2017; Seaborn and Fels, 2015; Hamari *et al*., 2014; Bogost, 2011; Zagal, 2009). This poses an ethical responsibility for game designers, who must ensure that gamified mechanics not only entertain but also promote genuine and sustainable behavioural change.

Likewise, eco-gamification can be perceived as a symbolic marketing tool if it is not accompanied by critical reflection and educational context, running the risk of constituting "gamified greenwashing". This ethical issue emphasises the need to integrate moral dilemmas, contextualised narratives and interaction metrics that promote the internalisation of sustainable values, preventing pro-environmental actions from being carried out solely for extrinsic motivation (Zvereva *et al*., 2023; Deci and Ryan, 2013; Klock *et al*., 2023; Almeida *et al*., 2023). Although there are risks of trivialising ethical behaviour, the integration of contextualised narrative, collaborative missions and symbolic rewards allows the game to generate meaningful, sustainable learning.

6. Implications for the future of tourism

Find the Seasouls exemplifies a new form of tourism experience based on localisation, active participation and gamification. This practice turns the tourist into the protagonist, as they not only consume, but also create, explore and interpret the environment, generating value through shared experiences. By combining physical and digital elements with an immersive narrative, it is part of creative tourism, where emotions, personalisation and the direct involvement of the visitor take centre stage. This approach has important implications for the future of tourism. Firstly, it redefines the role of the tourist, who evolves towards the figure of explorer and co-creator of content. The tourism experience ceases to be a one-way process and becomes a circular and collaborative practice, where the value no longer resides solely in the destination, but in how it is experienced, interpreted and shared. Secondly, Find the Seasouls helps to enhance the value of peripheral or less crowded destinations, contributing to the redistribution of tourist flows. By generating affective links through symbols such as the Seasouls, it awakens interest in less-explored territories, which favours a more equitable and sustainable territorial revitalisation. Moreover, the integration of mobile technology, participatory platforms and transmedia narratives gives rise to a hybrid physical-digital form of tourism. This hybridisation extends the tourist

experience beyond the face-to-face trip, anticipating a smart tourism model based on connectivity, interaction and constant engagement.

The practice of play fosters the creation of connected communities, where participants share meanings and feel an active part of a cohesive network. Each action reinforces the sense of belonging and transforms the visitor into an ambassador of the destination, promoting natural and sustained loyalty processes. Find the Seasouls opens a path towards a more creative, distributed and meaningful tourism. It not only promotes more memorable experiences but also contributes to redefining the tourist space from a logic of co-creation, emotional connection and territorial sustainability.

Beyond this specific case, this model offers generalisable and replicable lessons for the tourism sector. The "game-mission-reward" logic can be applied in different contexts, adapting missions to local issues (e.g. beach clean-ups, heritage trails or environmental restoration), linking visitors to the sustainability of the destination. In this way, Find the Seasouls illustrates how gamification can function as a transferable methodology to foster active engagement by tourists, environmental education and the creation of emotional bonds. Other destinations and platforms can also apply this approach by following three lines of action: (a) Designing immersive narratives that connect with local identities and reinforce authenticity; (b) Combining physical and digital dynamics to extend the experience in time and space; and (c) Encouraging visitor participation as co-creators, facilitating their interaction to contribute to sustainability objectives.

In practical terms, this means that a heritage destination could create a system of "cultural missions" that encourage visitors to discover lesser-known elements of its history through symbolic rewards or digital collectibles. Similarly, natural destinations can design exploration games linked to environmental conservation, where each tourist's achievement contributes to raising awareness or financing protection actions. Digital tourism platforms, for their part, could integrate similar mechanics to extend the experience beyond the physical journey, generating virtual communities around shared causes and reinforcing loyalty. Taken together, this gamified approach not only diversifies the tourism offering but also provides a replicable framework that can be adapted to different territories and realities.

With regard to the specific lessons learned through the game, these can be transferred to real-life sustainable tourism experiences through a structured approach that connects virtual emotions and behaviours with concrete actions at the destination. For example, the empathy awakened towards local biodiversity, the curiosity to explore the environment and the sense of responsibility for environmental conservation can be transferred to educational visits, participation in community activities or sustainable actions during the stay. To facilitate this transfer, a conceptual action map is proposed that organises the suggested steps for applying what has been learned in the real world, strengthening the practical relevance of gamification in tourism and experiential learning (Table 3). This framework allows us to specify how the stimuli and responses identified in the game can influence sustainable behaviours and educational experiences in the real world, enhancing the impact of the gamified approach on tourism management, environmental education and community participation. It should be noted that the implementation of this action map depends on the availability of time and resources of the participants outside the game platform, so its full application may vary according to individual circumstances.

7. Conclusions

The study offers an innovative contribution by analysing Find the Seasouls from a conceptual tourism perspective, without resorting to direct empirical application. Its originality lies in the application of the S-O-R model to explore how this game can influence the perceptions and behaviours of Generation Alpha and Generation Z tourists, who are traditionally overlooked in tourism literature. The analysis suggests that gamification dynamics (such as missions linked to

Table 3 Concept map of learning transfer from the game

Step	*Objective*	*Suggested action*	*Relationship with S-O-R*
1	Empathy towards biodiversity	Visit notable natural areas in the game and observe local species	Stimulus: ecological narrative → Response: empathy
2	Motivation and active learning	Participate in sustainable activities (clean-up, environmental restoration, heritage trails)	Stimulus: game mechanics → Response: sense of responsibility
3	Curiosity and interest in the environment	Explore museums, educational centres or trails linked to the game's content	Stimulus: immersive visuals → Response: curiosity
4	Cooperation and social commitment	Undertake group missions or local volunteering	Stimulus: social interaction → Response: collective motivation
5	Reinforcement and follow-up	Record achievements and experiences in diaries or digital platforms for sustainable tourism	Stimulus: rewards and achievements → Response: ongoing commitment

Source(s): Authors' own source

sustainability or rewards for responsible behaviour) have the potential to function as mechanisms for environmental education and awareness-raising towards sustainable tourism, offering a playful and effective way to convey values of ecological responsibility. The study also focuses on sustainability, highlighting the game's potential to foster responsible attitudes among young people through a playful approach that integrates narrative, technology and environmental psychology. Within the framework provided by the S-O-R model, it shows that the narrative and visual stimuli in Find the Seasouls could generate emotional responses (empathy with the oceans, motivation to act) and cognitive responses (understanding of environmental issues), conceptually reinforcing the link between playful experience and transformative learning in Generations Z and Alpha.

Find the Seasouls is presented as a pioneering experience in sustainable tourism, connecting with the values of new generations in a participatory and emotional way. Initiatives of this kind not only diversify tourism promotion strategies but also act as tools for environmental education and the creation of communities committed to responsible development. In practical terms, the findings suggest that tourist destinations interested in strengthening their sustainable profile could incorporate video games of this type as a complement to their educational and marketing strategies, adapting them to their local contexts to encourage responsible behaviour among young visitors. The model is replicable and adaptable for destinations seeking to reach emerging audiences, positioning gamification as a key pathway to more conscious and digital tourism.

However, the study has limitations. The absence of empirical data prevents direct validation of the behavioural impact of the game. Furthermore, focusing on a single initiative and a specific geographical context reduces the possibility of generalisation. Future research should incorporate mixed methodologies that allow for accurate assessment of whether the anticipated emotional and cognitive responses translate into sustainable behavioural changes, as well as compare different gamified proposals in various destinations.

Although gamification is seen as a promising avenue, it is necessary to maintain a critical perspective. These initiatives run the risk of remaining symbolic experiences if they are not accompanied by more profound structural and educational changes. The true contribution of proposals such as Find the Seasouls will depend on their ability to transcend the playful and generate sustainable long-term impacts, avoiding merely instrumental uses of sustainability for marketing purposes.

Overall, this work lays the foundation for further exploration of the transformative role of gamification in building more sustainable tourism geared towards generational change.

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