

Gamification Approaches to Immigrants' Experiences and Issues: A Systematic Review

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Abstract

Societies throughout today's global village are increasingly aware of the social injustices that minorities face, and immigrants are no exception. Combined with the lack of adaptation resources and the prejudice of non-migrant residents, immigrants may feel powerless in foreign places as they try to find comfort and security in new and unfamiliar environments. It is increasingly urgent to address immigrant issues, considering the crucial role of enhancing diversity, combating prejudice, and raising awareness of minority experiences. This systematic literature review investigates the innovative use of gamification in exploring and addressing the experiences and issues immigrants face. The review follows the PRISMA statement guidelines and checklist. *Scopus*, *CINAHL*, and *Medline* databases were searched, resulting in 17 relevant articles that were carefully analyzed. This research highlights the diverse applications of gamification in studying immigrant experiences via role-playing, interactive storytelling, and empathy-building simulations. This work explores the potential of gamified interventions in addressing pressing issues immigrants face and assesses their effectiveness in fostering empathy and intercultural communication. It also identifies gaps in the existing information sciences literature and proposes directions for future research. In conclusion, this review sheds light on the emerging field of gamification in immigration studies and games studies in the information sciences, providing valuable insights for scholars, policymakers, and practitioners working with immigrant communities worldwide.

Keywords: awareness; bias; empathy; gaming; immigrants

Publication Type: literature review

Introduction

The world is increasingly aware of the struggles and discrimination suffered by minority groups, including immigrants. The *Oxford Learner's Dictionaries* (n.d.) describes an immigrant as "a person who has come to live permanently in a different country from the one they were born in" (para. 1). Immigrants seek to feel comfortable and safe in the foreign countries where they want to live; however, they face obstacles in their daily lives, such as xenophobia coupled with a lack of adaptation resources (World Health Organization, 2022). Especially in light of recent conflicts, such as the 2022 Russian invasion of Ukraine, which led to heightened migratory flows, the imperative of extending hospitality to those seeking refuge in

nations like Poland or Germany, combating prejudice, and raising awareness about humanitarian crises is becoming ever more pressing.

There has been an effort to solve these issues in the past years through diverse approaches and digital gamification is one of them. Gamification, with its potential to enhance empathic engagement and immersion, has emerged as a valuable tool in various fields, including education, health, and marketing (Koivisto & Hamari, 2019). In the context of immigration studies, gamified approaches have gained attention as a means to understand and tackle the unique challenges that immigrants encounter (Paletta et al., 2013; Sabie et al., 2020).

As xenophobia is often the result of misinformation and lack of education (Lin et al., 2022), an effective way to combat it would be to educate people about the challenges and obstacles immigrants face in foreign countries. This can be achieved through digital games that can create empathy and compassion by putting players in the shoes of migrants. This point-of-view approach exposes players to the reality immigrants experience, including their trajectories, struggles, and daily lives.

This article aims to understand the work developed in this arena through a systematic literature review. The PRISMA guidelines and checklist were followed, and searches were conducted in the Scopus, CINAHL, and Medline databases. This resulted in 17 articles analyzed in detail to understand the innovative use of gamification in exploring and addressing the experiences and issues immigrants face. In this article, the term immigrant is used in the broadest sense, including not only people who leave their country to move to another country of their own accord but also those who are forced to do so, as is the case with refugees.

The following section briefly describes the background of this study and details the methods pursued to conduct its systematic review. Subsequently, we provide a descriptive analysis of the chosen articles, delving into the categorization of games featured in the examined articles and the associated theoretical perspectives. Finally, the paper focuses on conclusive evidence for the efficacy of gaming as a valuable approach for empathy-building experiences to build interpersonal connections between citizens and immigrants.

Background

Gamification involves using game design elements and techniques in non-game contexts to engage and motivate individuals to perform tasks or to achieve goals (Sailer et al., 2017). For example, gamification can motivate employees to achieve business goals or to engage and educate students or patients. Gamification is typically more open-ended and flexible than e-learning because it enhances a group's or organization's existing processes and activities, making embedded duties more engaging. Incorporating the element of play into business or educational contexts allows gamification to support a wide range of sociocultural activities and goals for educational or professional development.

On the other hand, serious games, or applied games, are complete interactive games (not just elements of games) designed specifically for education or training (Almeida & Simoes, 2019). Serious games are different from traditional games typically designed for entertainment. Applied games can teach life skills, increase knowledge, and be used in various settings such as education, healthcare, and the workplace. They can effectively engage learners and provide a more interactive and immersive learning experience (Girard et al., 2013). Serious games are

often more structured, focused on education and training, and may have more precise learning objectives and results than gamification.

Education about immigration can teach and influence players' mentality about issues immigrants face in a new society. Learning about immigrant issues through digital gamification depends on triggering emotions in users, such as empathy and compassion. Kim et al. (2018) examine how empathy can act as a catalyst for enhancing compassion. Empathy is related to personally understanding and feeling what others experience. Compassion consists of caring for those who suffer, taking initiative, and taking action to help them. When distinguishing compassion from empathy, the former derives from the latter (Kim et al., 2018). However, compassion involves concern and love for the individual, while empathy is characterized by sharing the same feelings as the person suffering. In this way, compassion leads a person to exhibit behaviors to help those in need, while empathy does not necessarily do so.

In this research, empathy and compassion are considered positive social emotions. Specifically for this study, a game has a positive effect when, in addition to teaching, it provokes more empathy and compassion in players toward immigrants and has a negative effect when the opposite happens.

Research Question

Given our concern for the experience of immigrants in a global society, coupled with the potential for gamification to be a positive catalyst for heightening empathy for immigration and refugee issues, we ask the following question:

What does a systematic literature review reveal about gamification's efficacy for motivating an empathic prosocial response to immigrant and refugee issues?

Methods

A systematic literature review follows clear and defined protocols, involves extensive planning, and a deliberately designed search strategy that aligns with the research question (Levy & Ellis, 2006). Following Moher et al.'s (2009) PRISM meta-analysis model, this literature review takes a systematic approach to adapting the PRISMA guidelines and checklist. The methodology for conducting the literature review in a systematic fashion involved three stages: material search, screening, and inclusion.

Material Search

The first step was to build a Boolean query that would allow us to screen for research related to gamification approaches to immigrants' needs and issues. We conducted several rounds of keyword combinations to devise a Boolean query to refine and specify search criteria. The Boolean string was as follows:

(["game" OR "gamification" OR "application" OR "app" OR "interactive" OR "gameplay" OR "videogame"]) AND (["migrant" OR "refugee" OR "immigrant"]) AND (["stereotype" OR "xenophobia" OR "social injustice" OR "inequality" OR "discrimination" OR "racism" OR "empathy" OR "obstacles" OR "society" OR "fear" OR "trouble" OR "neglect" OR "abandonment" OR "awareness" OR "solidarity"])

This query was used to search in three databases: *Scopus*, *CINAHL*, and *Medline*. These databases were selected based on the comprehensive coverage and interdisciplinary relevance they provide, which is essential to our multifaceted research focus. *Scopus* is one of the largest databases, covering a wide range of disciplines, including sociology, public policy, information management, and technology, and is particularly valuable for a study that crosses several fields. *CINAHL* and *Medline* provide broad coverage of public health, community health, and health disparities and are essential for studying the unique health challenges and barriers immigrant populations face.

The search was performed in December 2022 to gather peer-reviewed research articles published from January 2016 until December 2022. The search yielded 416 articles: 238 from *Scopus*, 51 from *CINAHL*, and 127 from *Medline*. Forty-one articles were removed from this data pool because they were duplicate records.

Material Screening

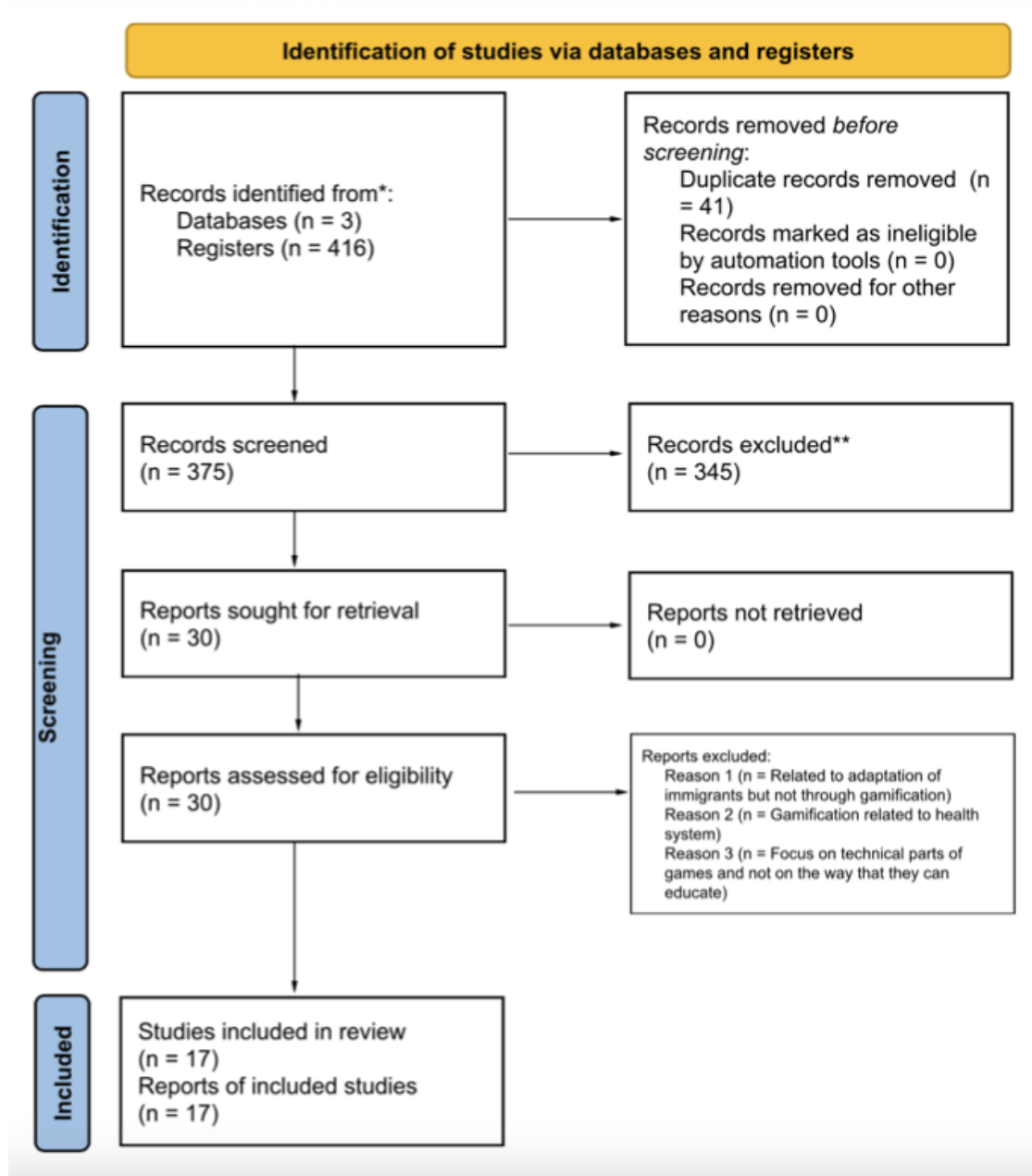
The screening phase consisted of reading the titles and abstracts of the remaining 375 articles to determine their relevancy to our research question. If so, they were included; otherwise, they were excluded, and the reason for their exclusion was recorded. Some of these articles were excluded because they were about sports gaming, prejudice and bias, healthcare, and finance, having little to do with gamification, digital gaming, or immigrant experiences and issues. Therefore, 345 articles were eliminated. The remaining 30 articles were screened for eligibility, analyzed, and read thoroughly.

We identified variables from the 30 articles, such as author, country, year, objectives, methods, the type of game addressed, evaluation instruments used, highlights, and limitations. From this assessment, 13 articles were excluded because they related to immigrants adapting to a new environment but not through gamification or focusing on the technical parts of games rather than their content or influences on players. This analysis resulted in 17 articles being included in the systematic literature review.

Material Inclusion

A total of 17 articles were included in the literature review. Figure 1 summarizes this process.

Figure 1. The Selection Process of Reviewed Articles



(Source: PRISMA Flow Diagram, <https://www.prisma-statement.org/>)

Results

A descriptive analysis of the final 17 articles verified that five were published in 2022, two in 2021, two in 2020, one in 2019, three in 2018, two in 2017, and two in 2016.

To characterize the country of origin of the articles, the country where the study scenario took place was considered, and, in the case of conceptual articles or articles without a single study scenario, the country of affiliation of the first author was considered. Table 1 shows the number of articles by country of scenario or affiliation.

Table 1

Number of articles by country of scenario or affiliation

USA	6
Italy	3
Spain	3
Germany	2
UK	2
India	1
Japan	1
Netherlands	1
Portugal	1
Thailand	1
United Arab Emirates	1
Total	17

The country of affiliation significantly shapes certain aspects of the articles, as they draw upon the experiences of immigrants residing in that country or reflect the environments where participants who tested the games are situated. However, this does not apply to all reports. Three reports focus on more theoretical aspects of the topic and do not have a testing phase; one performs the evaluation procedure based on the downloaded revisions, and eight interviewed people with different cultural backgrounds. In 12 of the 17 articles, the country of affiliation had little influence on its content.

Regarding the games related to immigrants approached by each paper, one focused on a board game, one on a card game, two on humanitarian games in general, two on newsgames, one on a virtual reality game, and one on a simulation. Nine papers explored point-of-view games, of which eight were digital role-playing games that put the player "in the shoes" of a character. These reports clarified what has been and can be achieved in the field.

Figure 2 presents the distribution of the 17 included papers per associated country (top left), year (top right), type of game approached (bottom left), and the specific point-of-view games (bottom right).

Figure 2. Characterization of Articles Reviewed

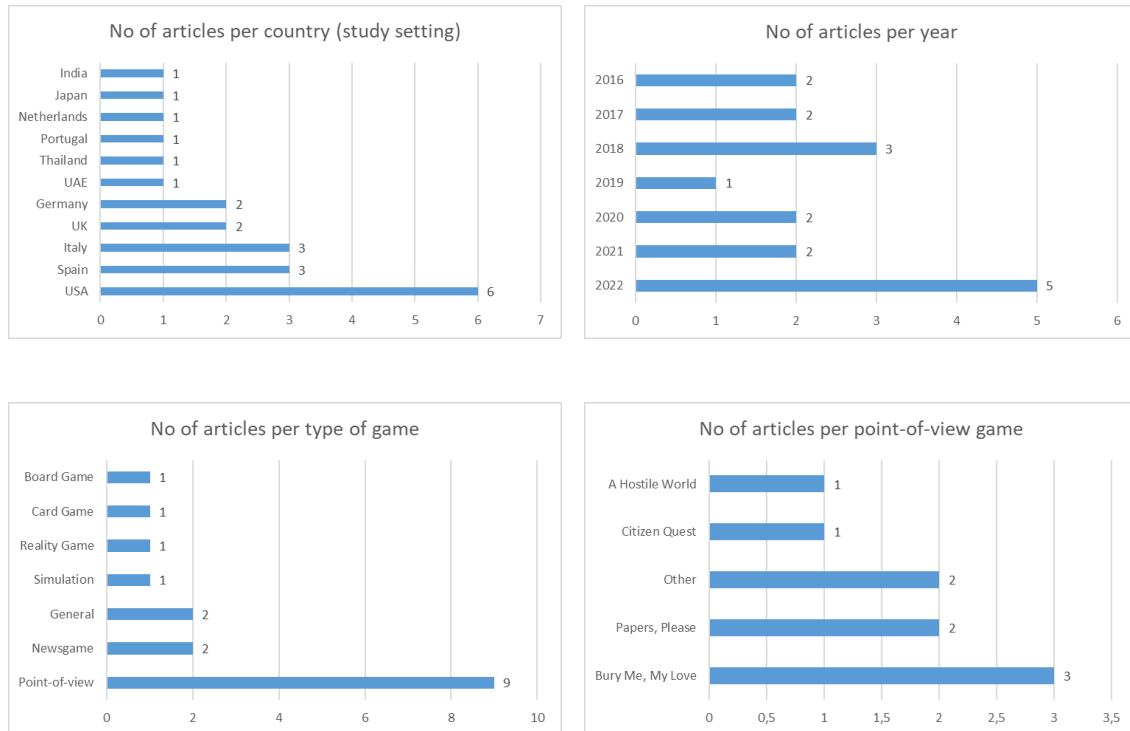


Table 2 (see Appendix A) presents the information extracted from each article reviewed, considering its objective, method or type of study, participants, type of game, and evaluation tools.

Discussion

This section discusses the results in more detail, exploring the types of games presented in the reviewed articles and the theoretical insights.

Types of Games

From the point-of-view games, three of them stood out: *Bury Me, My Love* (Mukund et al., 2022; Lee & Chen, 2023); *Papers, Please* (Cabellos et al., 2022); and *A Hostile World* (Mariani & Gandolfi, 2016). The first two are role-playing digital games that have been well received by the public and are available for purchase, while the last one is an immersion game made with research intentions.



Bury Me, My Love

Bury Me, My Love is a text messaging adventure game based on real-life events about a refugee and her journey to Europe that shows players the reality of Syrian refugees. This game depicts the Syrian refugee crisis, which began in March 2011, ultimately resulting in a civil war that forced a significant portion of the Syrian population to leave the country. The game showed "a great potential to influence players," engaging them and involving them in its narrative, and effectively "addressing the objectives of human rights education," therefore successfully achieving its goal (Gabriel, 2018, p. 41). According to Gabriel (2018), the game needed to meet the elements of the *Serious Games Design Assessment Framework* proposed by Mitgutsch and Alvarado (2012). This framework creates a comprehensive system for evaluating serious games. It analyzes the game's conceptual design, individual elements, and interrelationships within the context of its primary goals.

Other studies also consider *Bury Me, My Love* to engage players, to reduce bias towards immigrants (Lee & Chen, 2023), and to be a good learning tool and social-emotional competency booster (Mukund et al., 2022).

That said, the three articles focusing on *Bury Me, My Love* show positive conclusions that lead us to infer that the game is compelling. However, the articles focus on portraying the path refugees go through and not the xenophobia they suffer once they settle in a European country and coexist with residents.

Papers, Please

Papers, Please is a role-playing video game where the player acts as an immigration inspector who decides who can enter a country, be turned away, or arrested. This game was the focus of two of the 17 analyzed papers. Based on game reviews, one player concluded that this game's representation of "the situation of abuse and discrimination faced by the characters in the game and specifically by the immigrants" is correct and a good learning source (Cabellos et al., 2022, p. 11431). However, Cabellos et al. (2022) noted that *Papers, Please* did not lead players to reflect on morality issues.

Meanwhile, the second study by Peña and Hernández Pérez (2020) observed that playing *Papers, Please* from the point of view of an immigrant inspector reduced players' willingness to help immigrants, and their original stances towards immigrants remained the same as when playing another video game, *The Westport Independent*. In contrast, Peña and Hernandez Pérez (2020) report that in *The Westport Independent*, participants played from the point of view of a newspaper editor, and their play resulted in no change to their original negative stances towards immigrant issues or experiences.

Unfortunately, based on these studies, even though *Papers, Please* is a successful game and a dynamic way to learn about immigrants' issues, it does not seem to increase players' positive social perspectives toward immigrant issues.

A Hostile World

A Hostile World is a persuasive non-digital game set in a fictional urban city where players immerse themselves in hypothetical daily life scenarios as immigrants to a new environment

(Mariani & Gandolfi, 2016). The game operates on a quest-based system where players engage in various scenarios mirroring real-life situations, such as shopping or navigating bureaucratic processes. Its modular design allows for flexibility, enabling the adaptation to quests in different cities, contexts, and demographics, offering diverse gaming experiences. Mariani and Gandolfi (2016) point out that *A Hostile World* is operationalized to provoke an emotional "switch" in players, making them empathic toward the immigrant experience. Even though it is not a digital game, *A Hostile World* proved to be a helpful approach (Mariani & Gandolfi, 2016). Unfortunately, because *A Hostile World* is a place-based university tool, there is very little information on the game online, with its representation being found in papers that study its effects.

Citizenship Quest

Citizenship Quest is a role-playing game developed to teach online college students about gaining American citizenship (Stewart et al., 2020). The game aims to increase trust in immigrants by providing players with the experience of applying for citizenship in the U.S. With an emphasis on online classroom learning through play; its efficacy was tested by creating a form of social trust. The course instructors measured the games' impact through participant interviews (Bouchillon & Stewart, 2021). The results showed that most participants liked the game, which primarily fulfilled its purpose of increasing players' trust.

Empathy Up

Neuenhaus and Aly (2017) developed a mobile game, *Empathy Up*, to motivate their German students to heighten their empathy towards Syrian immigrants. The game's storyline culminates in a surprise meeting between two players: a Syrian refugee and a German resident. Neuenhaus and Aly's study relied on eight participants to test the effects of this game and found that the game emotionally connected two players with different cultures (Neuenhaus & Aly, 2017).

Mind the Five

Gomez et al. (2020) devised the card game *Mind the Five* to inform players about the ways in which immigrants are vulnerable to losing their privacy as a vulnerable population. Gomez et al. found that playing the game increased players' empathy and advocacy for privacy protections. The research team tested *Mind the Five* in multiple educational and professional development settings where participants shared their reflections on how the game positively impacted their understanding of data privacy (Gomez et al., 2020).

Diverse Arrival

Diverse Arrival's effects on residents and immigrants were studied by Huyakorn et al. (2018). They state that it improves perceptions in both groups towards diversity and exposes the design and mechanism of the game in more detail.

Life Course

Life Course aims to reduce bias in players and is directed toward health professionals. According to Hershberger et al. (2022), *Life Course* successfully triggers feelings of compassion toward minorities, making it an effective training method. Hershberger et al. relied on pre-test and

post-test questions to measure empathy. However, they recognized that the pre-tests should occur before the health professionals' training, which did not happen in the described experiment.

A Breathtaking Journey

In their 2016 study, Kors et al. developed "A Breathtaking Journey," a "multisensory mixed-reality game" (p. 100) depicting a refugee's journey in a new society. They innovatively assessed empathy-triggering in interviews by considering participants' facial expressions and bodily reactions to the game's virtual environment. The themes that emerged from Kors et al.'s analysis were "Socially-Shared Narrative Schemas, Post-hoc Narrative Interpolations, Emotional Markers, and Embodied Feelings" (2016, p. 96). Participants' nuanced responses to *A Breathtaking Journey* revealed the potential for immersive technologies to impact players' empathic responses to the immigrant experience.

Theoretical Insights

Many of the articles studied provide theoretical insights into the history and development of empathic games rather than focusing on specific games. One paper examined the history of humanitarian games and attempted to provide ways for designers to "integrate humanitarian intervention principles," addressing the framework the author believed to have the most positive impact on this type of game (Guardiola, 2019, p. 1). Furthermore, the ability of newsgames to provide information about refugees and how they represent it is studied by Plewe & Fürsich (2017), who conclude that newsgames can positively influence players' perspectives and provide additional content; however, they focus on limited solutions that may be disconnected from real life. Still, on the topic of newsgames, García-Gómez et al. (2021) also conclude that these games can trigger empathy in players, but it is more likely that the ideas being promoted are distorted.

Furini et al. (2018) focused on five aspects of developing gamification strategies: game rules, focus, mechanics, environment, and motivations to play. They concluded that gamification approaches cannot be generalized because their efficacy depends on the players' ages. On the other hand, Gil et al. (2021) focused on studying how the point-of-view, avatar, and avatar-to-player similarities influence player empathy by analyzing perspective-taking game design techniques.

The analysis identifies a spectrum of empathic games, each offering a unique perspective on immigrants' experiences. Games like *Bury Me, My Love*, and *Papers, Please* allow players to immerse themselves in the intricate narratives of refugees and immigration inspectors, highlighting the complexities immigrants face. *A Hostile World* and *Mind the Five* stand out as non-digital games, proving that unconventional formats can provoke empathy and solidarity effectively.

Citizenship Quest demonstrates the potential of online role-playing games to build trust among players and emphasizes the importance of gamification in addressing societal prejudices. *Empathy Up* showcases the power of storytelling and unexpected encounters, connecting players from diverse backgrounds. While *Mind the Five* lacks precise evaluation, *Diverse Arrival* and *Life Course* successfully challenge biases and prejudices, fostering understanding among players. The innovative approach of *A Breathtaking Journey* in assessing empathy through facial expressions

and narrative schemas highlights the evolving methods in empathy research within gaming contexts.

Additionally, Mitgutsch and Alvarado (2012) propose a *Serious Game Design Assessment Framework* that provides valuable information on developing a game that aims to teach and shows how a game focusing on immigrant issues can meet the proposed requirements. According to the authors, studying the components of a serious game's formal, conceptual structure and the interaction between these elements proves imperative for constructing a cohesive game system, which can serve as a basis for games that aim to combat xenophobia (Mitgutsch & Alvarado, 2012).

Furthermore, Guardiola (2019) explores the history of humanitarian games and suggests game frameworks to consider. Furini et al. (2018) explore aspects to include and focus on during game development, and Gil et al. (2021) explain how to awaken empathy in players during the game. All these contributions lead to a safe starting point for creating innovative games that build empathic understandings of immigrant or refugee issues and experiences.

The creation of such games is necessary since, of the games mentioned, none utilize a digital format to show the daily struggles that immigrants face in foreign countries and how simple tasks can turn into challenging and unpleasant experiences due to xenophobia. This specific theme leads non-immigrant players to look around them and identify real-life situations portrayed by the game. If the game is well developed and capable of fulfilling its purpose, it could influence players' positive social emotions, generate empathy and compassion towards immigrants, and take adequate measures to help mitigate xenophobia.

Finally, the studies analyzed aim to influence players' empathy while highlighting the importance of compassion, which, according to the abovementioned definitions, is the only emotion that leads people to take action to help those in need. Therefore, more studies must be conducted to understand how gaming affects players' empathy and compassion, which gamification strategies should be applied, and which game frameworks would be most successful.

Conclusion and Future Work

This work presents a systematic review of the literature to investigate the innovative use of gamification in exploring and addressing the experiences and challenges immigrants face. The analysis reveals that many of the games studied effectively educate players about immigrants' struggles during their journeys from their home countries to their destinations. Point-of-view games, exemplified by *Bury Me, My Love*; *Papers, Please*; and *A Hostile World*, were prevalent in the literature, demonstrating their impact on players' understanding and empathy for immigrants' issues. These games offer immersive narratives that evoke empathy and understanding among players, contributing to a more empathic society.

However, despite the prevalence of these empathic games, none fully captured the daily struggles of immigrants, particularly in the face of xenophobia and other societal barriers. *A Hostile World* came closest in content, although it lacked a digital format. The absence of a digital form limits the accessibility and reach of the game, potentially excluding individuals who could benefit from experiencing and empathizing with the immigrant experience.

The results underscore the potential of humanitarian games in enhancing public understanding and compassion for immigrants, fostering a safer and more empathic environment. However, this field requires further research, especially in depicting the everyday experiences of immigrants, highlighting the need for more nuanced digital portrayals. The analysis clarifies the necessity for standardized evaluation methods and the limitations of specific game formats. By engaging players through entertainment, educating them about diverse experiences, and inspiring empathy, these empathic games have the potential to cultivate greater awareness and solidarity throughout communities.

Appendix A

Table 2. Information Extracted from the Reviewed Articles

Reference	Objective	Method/ Type of Study	Participants	Type of game	Evaluation tools
Bouchillon & Stewart (2021)	To understand whether or not role-playing games increase trust in immigrants	Interviews (before and after), Index of Generalized Trust	First-generation college students from homogeneous high schools	Role-playing game to experience application for citizenship, <i>Citizenship Quest</i>	Interviews (before and after), Index of Generalized Trust
Cabellos et al. (2022)	To determine the game's potential in promoting ethical education	Analysis of players' reviews	1,560 reviews	<i>Papers, Please</i>	Analysis of reviews
Furini et al. (2018)	To assist in the development of effective gamification strategies	Surveys	226 participants	Games in general	Examine five facets of enacting a gaming plan: procedures, focal points, processes, incentives, and setting

Gabriel (2018)	To present <i>Serious Games Design Assessment Framework</i> (SGDA) as a tool to assess whether a game can be used to fulfill its purpose (such as creating empathy)	Use of <i>SGDA Framework</i> and games related to serious migrant and refugee issues	None	A game about a refugee to show people the reality in Syria, <i>Bury Me, My Love</i>	<i>SGDA Framework</i> and analysis
García-Gómez et al. (2021)	To examine the use of five newsgames in terms of quality	Analysis based on theoretical perspective, levels of analysis, etc.	Researchers	Newsgames, <i>The Refugee Challenge</i> ; <i>Two Billion Miles</i> ; <i>Syrian Journey: Choose Your Own Adventure</i> ; <i>Bury Me, My Love</i> ; and <i>The Waiting Game</i>	Researchers evaluated them in sessions
Gil et al. (2021)	To understand how point-of-view, avatar, similarities, and changing avatar impact empathy in game design	Interviews and gaming	Twenty adult participants that lived in the U.K. for more than a year	Game context is a multi-cultural office workplace environment where players interact with colleagues in different scenarios	Probabilistic Timed Graph Transformation Systems (PTGTS) Properties
Gomez et al. (2020)	To discuss the game <i>Mind the Fives</i> effects	Surveys	50 participants at an academic conference	Card games, <i>Mind the Fives</i>	Survey after

Guardiola (2019)	To analyze the history of humanitarian games	None	None	Humanitarian games, <i>Antura & the Letters</i>	None
Hershberger et al. (2022)	Make a simulation with minorities in the context of health care to understand the empathy it generates	Virtual reality immersion with two characters that are minorities, play game, and surveys (before and after)	Health professionals	Simulation, first-person role-play, <i>Life Course Game</i>	Evaluation of pre-simulation and post-simulation questions
Huyakorn et al. (2018)	To assess the perception and acceptance towards immigrants and to understand the effect of a game simulation related to the topic	Interviews (before and after)	100 people, most of them live alone	Board game	Interview results
Kors et al. (2016)	To understand characteristics that create empathy and how to provide an empathic experience	Creation of a game with an embedded narrative and interviews that took into account participants' facial expressions	People over 18 years old from western European countries	Immersive game with two parts: an auto-diegetic "dream scene" and a "driving scene," <i>A Breathtaking Journey</i> (Kors et al., 2016, p. 94)	Analysis of "Socially-Shared Narrative Schemas, Post-hoc Narrative Interpolations, Emotional Markers, and Embodied Feelings" (Kors et al., 2016, p. 96).

Lee and Chen (2023)	To check whether inter-group contact with a virtual refugee increases user empathy	None	156 undergraduate students at a public university	A game about a refugee to show people the reality in Syria, <i>Bury Me, My Love</i>	Measure of compassion, inclusion of others, threat, anxiety
Mariani & Gandolfi (2016)	To explore the outcomes of the game <i>A Hostile World</i> and how it triggers emotions that create empathy with migrants	Questionnaires after the play experience	141 Questionnaires in universities	A game to raise awareness on immigration, <i>A Hostile World</i>	Analysis, with the following factors: general profiling, specific profiling, feelings perceived, significant traits, and aspects of experience
Mukund et al. (2022)	Understanding how a game can convey knowledge and empathy to adolescents	Forms after participants played the game	Students from five schools in U.A.E. and India	A game about a refugee to show people the reality in Syria, <i>Bury Me, My Love</i>	Measure of compassion, empathy, intervention, the results part is wealthy
Neuenhaus & Aly (2017)	To show that a game that addresses cultural differences can connect people from different cultures	Registration of participants' experience	Eight people	Games creates empathy through the story scenario and in the ending, both players surprisingly meet in reality, <i>EMP-UP</i>	None
Peña & Hernández	To understand if in role-playing games playing as a	Playing the game and surveys	Spanish college students,	Role-playing game to experience being an inspector that	Interviews using the Likert Scale, evaluating intentions, attitudes, subjective norms, self-

Pérez (2020)	person who does not trust immigrants can decrease empathy	(before and after)	in their early 20s	suspects immigrants, <i>Papers, Please</i>	efficacy, social dominance
Plewe & Fürsich (2017)	To understand if newsgames about refugees can give more information (to news) and how they are represented	Making of three newsgames	None	Newsgames, done to inform and make players empathize with refugees and migrants, <i>The Refugee Challenge, Against All Odds</i> and <i>The Migrant Trail</i>	None

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