Systematic Review

The Cultural Impact of Video Games: A Systematic Review of the Literature

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Abstract: The growing relevance of video games in the social landscape requires an in-depth evaluation of the bidirectional influences of these adjacent contexts, among which the educational and cultural contexts stand out. This permeability allows the study of the cultural aspects surrounding the production and use of video games as tools for cultural dissemination. Our research enunciates, recognises, analyses and evaluates the impact of these tools with the aim of being taken into consideration by the scientific community and the general population, who most frequently consume, use and socialise through video games around the world. Based on this, a systematic literature review (SLR) was carried out using the Prisma 2020 Protocol, using the WOS and SCOPUS databases as documentary sources, and the selection of research articles that explore the cultural aspects of video games according to pre-established criteria. The final sample (N = 45) was subjected to a study that posed 12 research questions around which this work is structured. As a result, it is evident that video games have a direct impact on the transmission of culture. Patterns and agents of cultural representation, transmission and communication were identified, allowing researchers to evaluate the impact of video games on culture and to approach this object of study from an academic perspective, helping to open up other lines of research related to the influence of video games on the assimilation of culture, the learning of relevant issues related to it or the transmission of specific cultural elements.

Keywords: video games; culture; cultural studies; cultural transmission; digital culture

1. Introduction

In recent decades, video games have experienced exponential growth in their relevance and social impact. It has turned the leisure product that began in arcades into the largest form of entertainment and cultural expression today [1] and, according to the Entertainment Software Association (ESA) report in 2021, more than 70% of Americans played some kind of video game, and this trend is maintained in successive reports [2]; in this sense, we can say that video games have become a powerful learning tool in non-formal learning contexts surpassing traditional mass media. Their adaptability and permeability transcend borders and generations; although people today receive video games as an element of leisure, they do not consider that its implications are much greater as with each game session, new ideas, skills and knowledge are acquired by players [3], regardless of the language or the context of their production, which is not a barrier to its diffusion. In this way, both young people and adults socialise through video games today and take social, historical and cultural references from them [4].

In a context in which the relationship between people and technology is becoming increasingly closer, the cultural implications of video games allow for consideration beyond the merely ludic, involving cultural, social and educational aspects.

1.1. Technology and Culture

The cultural construct has usually been linked to particular spaces of communication, so a broad definition of culture is one that includes a set of values, beliefs, customs and traditions of a particular group or place. Among these aspects is the use that societies or cultures make of technology and the tools at their disposal. However, with globalisation and technological democratisation alongside access to information and the internet, a drastic technological transformation is taking place that enhances cultural preservation and dissemination through technologies that can reach more people and increase their influence [5]. This is due to the fact that current techniques and knowledge influence the construction of culture itself, changing it and subjecting it to the constant process of recreation, which has eliminated spatial-cultural borders [6].

In this sense, to relate technology and culture in the 21st century is to understand how culture is constructed and disseminated and how these media have brought about a change that has profoundly influenced the irruption of new tools, resources and modes of communication [7]. Consequently, the relationships between these two concepts are becoming increasingly extensive and frequent. Therefore, researchers are immersed in understanding the technological processes that underpin cultural and learning processes, which are produced in different ways [8]. (1) Firstly, technology expands cultural processes, allowing them to spread to a greater number of people and places; this process of diffusion is similar to other revolutions of cultural diffusion on a different scale, such as the invention of the printing press, which allowed the widespread dissemination of information but whose massification was very limited due to the high cost and few people who could read; the radio, since it was economically affordable and its programming was varied, allowing it to reach many people; and finally television and cinema through their cultural programmes that helped annex a moving image, making the content more attractive [9]. (2) Secondly, research concludes that technology maximises cultural processes by making them more accessible and participatory. The emergence of social networks or online communities allows people to connect with each other and share their cultural experiences in an easier way [10]. (3) Finally, technology diversifies cultural processes by giving rise to new forms of cultural expression and creation that are reflected in the emergence of new cultural genres and formats.

1.2. From Playful to Cultural: Playful Culture

Play as a ludic activity represents a form of cultural expression that has its roots in the history of mankind itself and that has taken root throughout generations and diverse cultures [11]. In recent decades, and as a consequence of the irruption of technology in the dissemination and transmission of culture, societies have seen their cultural barriers become blurred, as different people of the world share the same cultural references and consumer products. Different media have served as a catalyst for the dissemination of culture at mass levels; this type of media is identified within the culture of convergence, combining elements of different media such as cinema or television [12]. In his research, he argues that video games can be used to explore and negotiate cultural issues. Subsequent research based on his precepts has continued to analyse this topic, finding that current cultural and social transmissions begin to be represented in the video game Spokes cites the case of The Last of Us, which explores themes of survival, love, sexual orientation and loss in a post-apocalyptic world from a contemporary cultural perspective [13]. In this sense, the video game ceases to be an element whose only orientation is leisure and playfulness; instead, it acquires the character of an object that generates culture and produces new forms of communication. New structures of interrelation appear around video games, with their own characters and cultures, structured around different game worlds, with technological possibilities of communication–interactions with a specific cultural, linguistic and communicational corpus. This is the case of communities such as World of Warcraft [12].

Furthermore, numerous authors point out that the massification of video games is not affected by the construction of barriers or frontiers, neither idiomatic nor physical; becoming an agent of ludic–cultural diffusion with a capacity of attraction never seen before allows us to establish previously unprecedented relationships and interventions with elements of the real world [14,15].

The essence of video games is, therefore, that of the traditional game but adapted to new formats and shaped by the confluence of different media and languages in a single medium [16]. In this sense, the culture–video game binomial emerges because of the shared elements involved in the socio-cultural construction of communities, including cooperation, problem solving, and the establishment of norms and rules of play but also the reproduction or creation of real or imaginary environments, their dissemination and staging [17]. However, since video games offer a controlled, replayable and immersive experience that other media do not, they allow for unlimited reproduction of actions, greater control and game experience, which, when performed within a contextualised narrative, offers greater cultural meaning [18].

1.3. Video Games and Culture

Relating video games to culture implies understanding that both elements interact with each other because the video game as a medium allows for the reproduction, assimilation, transmission and creation of culture [19]. From classic video games, today considered cult and study objects exhibited in art museums such as the MoMA in New York or the OXO in Malaga, to the appearance of open-world video games with their representations of entire societies and cultures, all video games, due to their representational and figurative character, have implied cultural transmission [16].

Researchers state that the relationship between video games and culture is manifested in the medium's capacity as a powerful element for the dissemination and transmission of knowledge, beliefs, ideas and values [20], as well as in its capacity to generate new cultural representations that are manifested in the creation and design of new game rules and dynamic structures for playful interactivity. In relation to this topic, if we compare television with video games, we find that in more than 70 years, the only major change in television regarding its interaction with the user is the introduction of colour. By contrast, the world of video games is constantly innovating by including elements that enhance this interrelationship, such as interactive elements, different types of control, motion detection systems, augmented and virtual reality experiences, and even incorporating systems that try to reproduce and transmit pain, heat, wind, etcetera [3,16,21].

Thus, thanks to its differentiating and participatory characteristics, a rethinking of how video–ludic artefacts act as vehicles and transmitters of cultural knowledge are produced [22] and framed in a new medium that, without rejecting narrative and argumentative aspects, has interactivity as its greatest ally, allowing the establishment of dialectic relationships between the players and game that amplify the construction of meanings [23].

Some researchers point out that video games implicitly carry a certain ideological load, which turns them into a vehicle for transmitting hegemonic ideals and cultures, such as Capitalism, Liberalism, American Exceptionalism or Warmongering. Perpetuating gender roles sustained in patriarchal culture or revisiting specific historical episodes to adapt them to the interests of a dominant discourse are aimed at sustaining an ideology or discourse [24,25].

In this sense, video games use specific mechanics and tools from the world of video game environments, and for this reason, the best way to question the game is precisely the game itself. Understanding this statement as the need to create experiences of play that oppose the dominant vision in the industry, from a research profile, requires studies that delve deeper into the video game as an object of study [25].

1.4. Previous Literature Reviews and Meta-Analyses on Culture and Video Games

The interrelation between video games and cultural heritage is a relatively new field of study that emerged with the reconsideration of video games as a medium accepted by researchers and educators. In this sense, it is logical to state that there are no previous literature reviews that match the proposed research objectives or terms; this study intends to provide researchers with a broad perspective on the relationship between video games and culture. Nevertheless, there are some studies that bring some questions closer. An example of this is a literature review conducted in 2021 by a group of German researchers that identified video games as one of the hot spots for researchers and also enunciated a growing interest in the scientific society of aesthetic and cultural issues [26]. This study could serve as a precursor to the inclusion of the confluence of video games and culture in the scientific spectrum. Although the study limited itself to identifying hotspots and did not carry out any research on this relationship, it set a first precedent on which to justify the validity and interest of the study question posed in this article.

Similarly, other literature reviews, although they do not have the dimensional character of this study, do delve into some of the aspects analysed in this paper, such as the relationship between feminism and video games [27] or a second study of the politics of game production, which identified the new political–cultural developments associated with the production of video games from a critical perspective on which research into the hidden interests of video game production should be based [28]. The most in-depth research in the area of study is another systematic literature review published in 2020, which delved into the impact of video games on their players, concluding that video games have the potential to help acquire cultural knowledge and develop socio-cultural literacy [29].

In view of the above, a literature review with a much broader view of this field of study was necessary, analysing the cultural aspects and themes involved, the scientific and methodological processes, as well as the resources used, their objects of study and publishable results.

2. Materials and Methods

In this study, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA, http://www.prisma-statement.org/ accessed on 4 May 2021) (identifier registration number: DOI 10.17605/OSF.IO/3J7VM) [30] method was implemented, building on the original Quality of Reporting of Meta-Analyses (QUOROM) guide for systematic reviews and meta-analyses (PRIMA checklist can be found in the Supplementary Material). A systematic literature review is a process of collecting and analysing data in aggregate that is conducted after establishing prior selection criteria, the aim being to answer a set of research questions posed around a hot topic or with a high number of publications. This systematic review applies the PRISMA 2020 standards [31,32] to identify eligibility criteria, information sources, search strategies, selection processes, data collection process and data list presentation. The systematic review process that has been conducted consists of different phases [31]:

Phase 1: Research questions (RQs). They were organised around four dimensions or areas, as shown in Table 1: (1) the documentary dimension (RQ1–RQ3), which aimed to identify the areas of knowledge to research on the topic, including the geographical origin of the researchers and the impact of their productions; (2) the methodological dimension (RQ4), which addresses the research approaches and methods applied; (3) the video game dimension (RQ5–RQ8), which aims to define the aspects associated with the technology and game tools used; and (4) the cultural dimension (RQ9–RQ12), to analyse the intrinsic cultural aspects of the video game and the impact of this medium on the transmission of culture.

Table 1. Areas, research questions and initial coding.

Areas	Research Questions	Coding
Documentation dimension	RQ1. What is the conceptual network extracted from the literature and what are the topics of the articles according to the category of the journal in the databases?	Co-occurrence map by keywords. Thematic categorisation of journals (Scopus)
	RQ2. What is the geographical distribution of the publications?	Country in which research was conducted.
	RQ3. What is the distribution of articles according to their position in the database?	Quartile of the journal and year of publication of the article (Scopus)
Methodological dimension	RQ4. What methodological approaches and research methods are used in the selected studies?	Approaches: quantitative, qualitative, mixed Methods: case study, instructional design, quasi-experimental, experimental, DBR, theoretical, survey questionnaire, exploratory data analysis, descriptive, ethnographic, observational study, exploratory study, participatory action research, autoethnography, literacy review, critical-reflective approach, content analysis with a narratological approach, video game analysis, content analysis steam pages, DELPHI panel, multiple case study.
Video–play dimension	RQ5. What is the typology of the video games presented or analysed?	Action, arcade, casual game/party, graphic adventure, sports, educational, strategy, fighting, Mmorpg, platformer, RPG, shooter, simulation, horror, interactive fiction, mix games, no game typology
	RQ6. How are the video games introduced and how do they interact with the objects of study?	DGBL: serious game, DGBL: video game, DGBL: simulator, video game creation, non-direct introduction, DGBL and video game creation, DGBL and serious games combined, video game blogs.
	RQ7. What technology associated with the video game is used?	Video games, serious games, video game RV, video games creator Unity, game jam event, video game study and creator, video game forums and blogs, video game Wikis, RSL.
	RQ8. What are the titles or video games used?	Specific titles of the video games and tools used.
Cultural dimension	RQ9. What is the cultural theme that is the object of study and representation in the studies analysed?	Literary description of the cultural themes and representations depicted: culture, geographic–cultural area, message.
	RQ10. From what dimension is the cultural approach taken?	Archaeological, architectural, anthropological, ethnographic, beliefs, values, artistic representations, literary, audiovisual, feminism, historical, ideological discourses, care for the natural environment, narrative of terror, emotional competence.
	RQ11. What results or conclusions do the researchers obtain in relation to the culture–video game binomial?	Study of the detailed results of the research reviewed.
	RQ12. Is there a direct impact between video games and human culture?	Yes/No and justification

Phase 2: Eligibility criteria and sources of information. The documentary sources used are from articles published in indexed scientific journals published during the period 2004–2022, which are the dates of the first and last inclusion in the first search. These documents and their searches include the following Unesco Thesaurus terms: video games, culture and subculture. The terms have been adapted and are not the same as those used in the database search because the novelty of this research means that some terms are not yet

established or are synonymous with computer games—video games. Empirical studies with quantitative, qualitative and mixed methods were included. Exclusion criteria were applied to articles whose main theme was not culture and the relationship between culture and video games as an impact on cultural development.

Phase 3: Search strategies. The WOS and SCOPUS databases were used for the selection of scientific articles. Both are recognised as specialised databases in scientific research and have the support and recognition of the international scientific community. The search terms used were as follows: Video games, Computer Games, Culture and Subculture.

Phase 4: Study selection process. The initial search yielded 273 articles, of which 61 were duplicates. Thus, 212 articles were analysed on the basis of the title and abstract; the process is based on inclusion–exclusion criteria to agree on the final exclusion of a total of 155 articles. The remaining 57 articles were analysed independently and in their entirety, which led to the exclusion of a further 12 articles by prior agreement. Thus, the final sample of documents for the systematic review was composed of 45 articles. To facilitate this transcription, it was possible to use a flow chart developed according to the indications of the PRISMA 2020 Protocol, which was later specified by numerous authors [31,33]. Our diagram is shown in Figure 1.
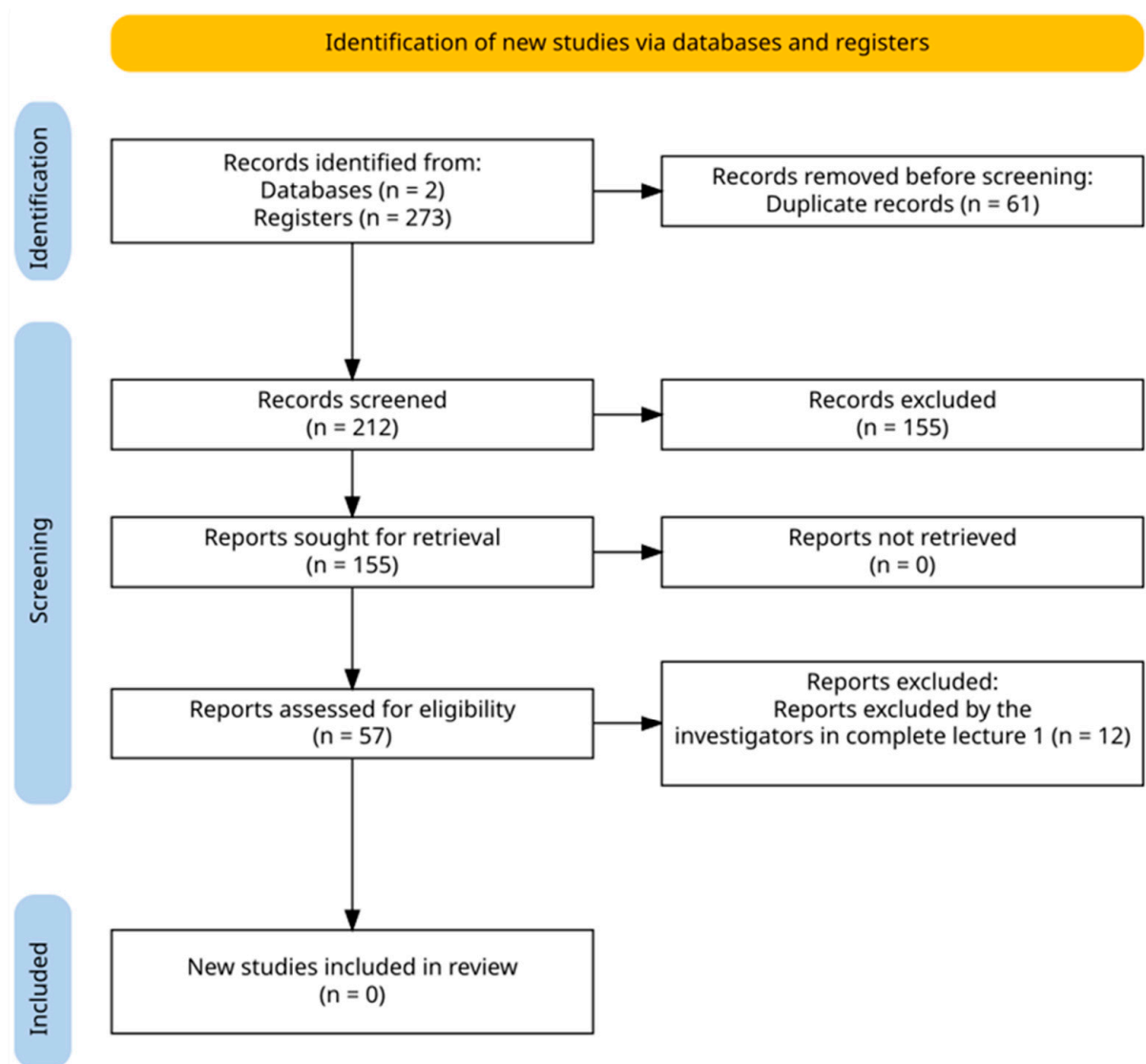

Figure 1. RSL Flowchart.

Phase 5: Data coding and synthesis. The Zotero bibliographic manager was used for data collection and compilation. The synthesis of information was carried out using a coding sheet with 33 fields (Excel). These were divided in relation to the following aspects: identification of the document according to authorship, date of publication, title, journal, etc. Fields relating to the methodological area were also included: subject, type and methodology of the study; next, we studied the conceptualization of the video–ludic aspect: the type of game, form of introduction and technology or video game used; and finally, we analysed the thematic or cultural perspective investigated, the cultural approach made and the results stated by each work of research. The researchers first analysed independently and then by consensus for the different phases of selection, according to the criteria agreed prior to the completion of the review.

3. Results

The results of this study are organised around the research questions set out in Table 1. These questions allowed the studies to be categorised and differentiated for analysis and are, therefore, the most explicit way of presenting the research results.

3.1. RQ1. What Is the Conceptual Network Extracted from the Literature, and What Are the Topics of the Articles according to the Journal Category in the Databases?

In the analysis of the conceptual network, we obtained a series of clusters generated by the co-occurrence of keywords in the articles and selected in the final phase. This co-occurrence was organised around a number of two keywords, as shown in Figure 2. The first cluster (nine items) in red exposes a conceptual network around game studies and its main development environments, finds connections with new media, and affects the reproduction of culture or game jams. The second cluster, also (nine items) in blue, shows the general connections between video games, the media and the channels used in their interrelation with culture, which is, in fact, the cluster that most diversifies its connections, as these extend from the educational world to the creation of learning communities and video game designers.
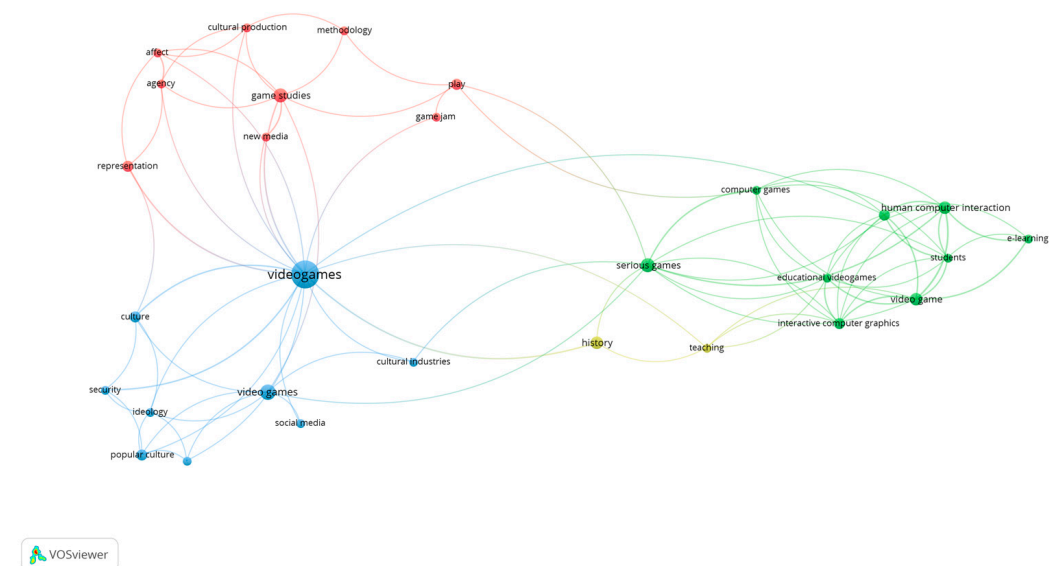
Figure 2. Map of co-occurrence of keywords and articles reviewed. Source: Prepared with VosViewer 1.6.20.

The third cluster, in green, is related to serious games and particularly to the educational aspect of cultural studies associated with video games. This network creates a final cluster with only two items that serve to identify relationships between the teaching of history and culture.

The articles analysed in the two databases (WOS and Scopus) were published in indexed journals, which are associated with specific categories. In particular, cultural study journals represented 20% and social science journals 15.56%, followed by communication 11.11% and education 11.11%. The rest belonged to less representative portions of various areas and lower percentiles, as represented in Figure 3.
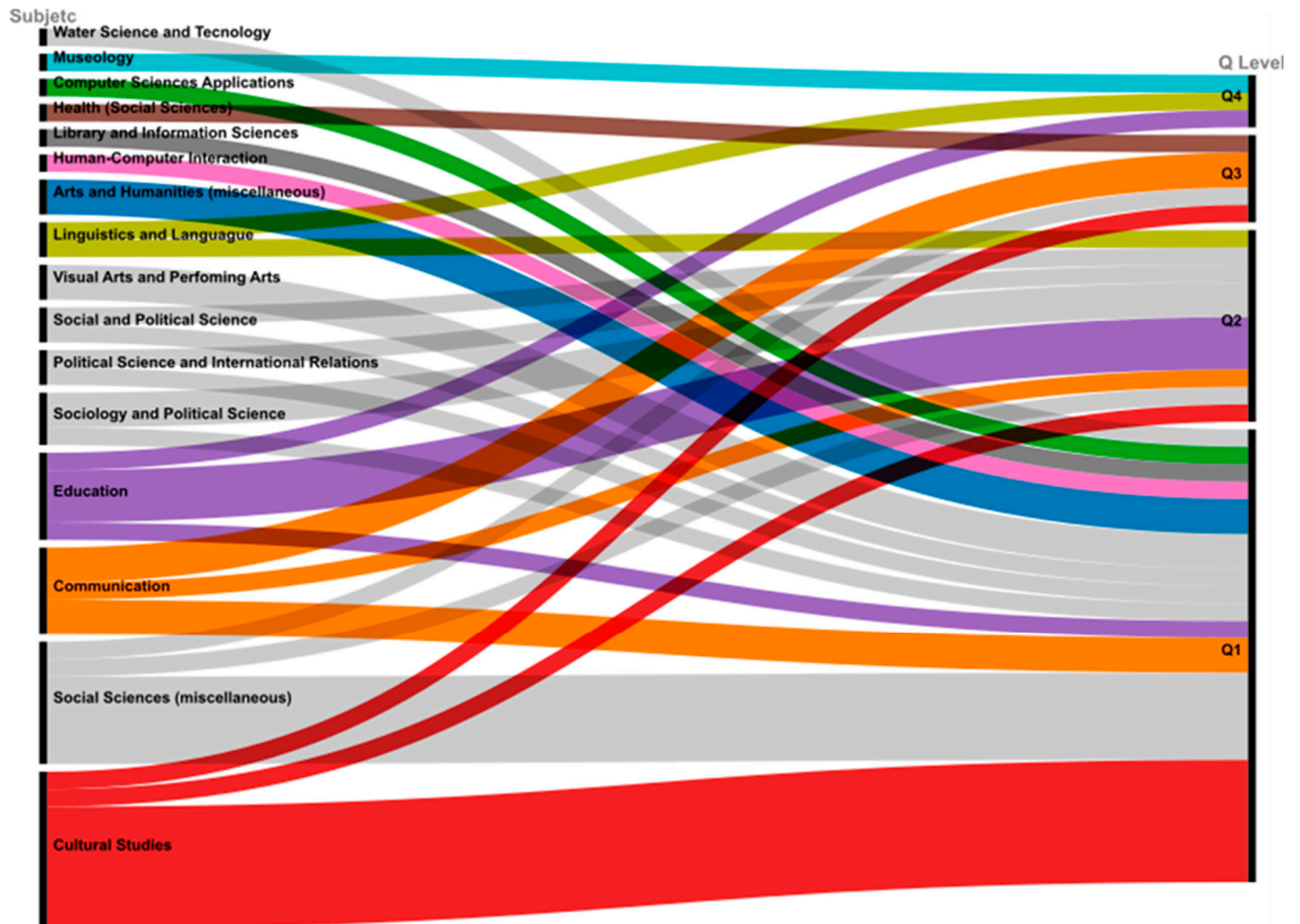
Figure 3. Distribution of publications in the different areas of journals and indexing indexes.

3.2. RQ2. What Is the Geographical Distribution of Publications?

This research establishes the first author of the articles and their provenance as a binding element when defining the geographical location of the research carried out. This criterion is selected as cultural objects are studied rather than populations or individuals. It is also due to the global nature of video games as a means of cultural dissemination. As a result, we found that analysed studies were distributed among a total of 18 countries. A detailed analysis showed that 31.11% of the studies were carried out in Spain, followed by the United Kingdom, where 11 publications represent 24.44% of the research analysed. This was followed by Australia with 8.88% and Portugal and Belgium with 4.44% each. Finally, with a presence of 2.22% and only one entry in the final study base were Germany, Poland, United States, Greece, Czech Republic, Cyprus, Slovenia, Norway, Netherlands, Finland, Sweden, Romania and Colombia. The heat map in Figure 4 shows the areas with the highest number of publications.

Figure 4. Distribution of publications around the world.

3.3. RQ3. What Is the Distribution of Articles according to Their Position in the Database?

The journals containing the articles selected for this review were classified according to the quartile assigned to them in Scopus, in accordance with their year of publication. Thus, 57.77% of the articles were published in journals in quartile 1 (Q1), 24.44% of the articles belonged to the second quartile (Q2), 11.11% of the studies were in the third quartile (Q3), and finally, 6.66% of the articles were in the fourth quartile (Q4).

The analysis of publication rates allows researchers to find relationships between these and countries or areas of publication. These are distributed similarly to the number of publications and countries involved. It is striking that Spain, despite being the country with the highest number of publications, is also the country with the most moderate indexing indexes (Q3) and (Q4); while Spanish publications are distributed throughout all quartiles, British publications only appear in the first two (Q1) and (Q2), the language of all articles being English.

On the other hand, it is noteworthy that the origin of publications is not directly linked to indexation, as countries with few records in the database were found in the first quartile (Germany, Poland, Cyprus, the Netherlands, Finland, Czech Republic, Sweden, etc.). Figure 5 clarifies these relationships.

### 3.4. RQ4. What the Methodological Approaches and Research Methods Are Used in the Selected Studies?

The studies were classified according to their approach as quantitative (6.67%), qualitative (68.89%) and mixed (24.44%). It is possible to establish a relationship with the methodologies used in this research; Figure 6 connects them and states that case studies are the method most used by video game researchers (17.78%), followed by exploratory studies (13.33%) and ethnographic studies, which represent 11.11% of the total. Theoretical studies were used by 8.89% of the research, while systematic literature reviews, descriptive studies, experimental studies and autoethnographies each accounted for 6.67% of the studies, while video game analysis, content analysis and critical-reflexive studies accounted for 4.44% for each type of study. Finally, IAP research, comparative and multiple case studies stood at 2.22%.

Figure 5. Countries of publication and indexing indices.

3.5. RQ5. What Is the Typology of the Video Games Presented or Analysed?

With regard to the type of video games analysed, it was found that 26.67% of the studies analysed Mix-Games, followed by educational video games at 15.56% and shooters at 8.89%. Simulators or simulation games accounted for 6.67%, as did action games. RPGs and adventure games accounted for 4.44%, while strategy, interactive fiction and horror games accounted for only 2.22% each. Finally, there were up to eight game studies that could not be categorised, either because they did not directly use a video game but rather elements of it or because of the typology of the study; this sample represented 17.78% of the studies in this category. Figure 7 allows researchers to establish relationships between genres and their use, making it clear that the preferred form of introduction is the direct use of the video game or DGBL; the fact is that, in its configuration, this table states the polyvalence of the video game in terms of its multiple forms of introduction or implementation and the typology of the game to be used, allowing researchers an almost endless range of possibilities of association.
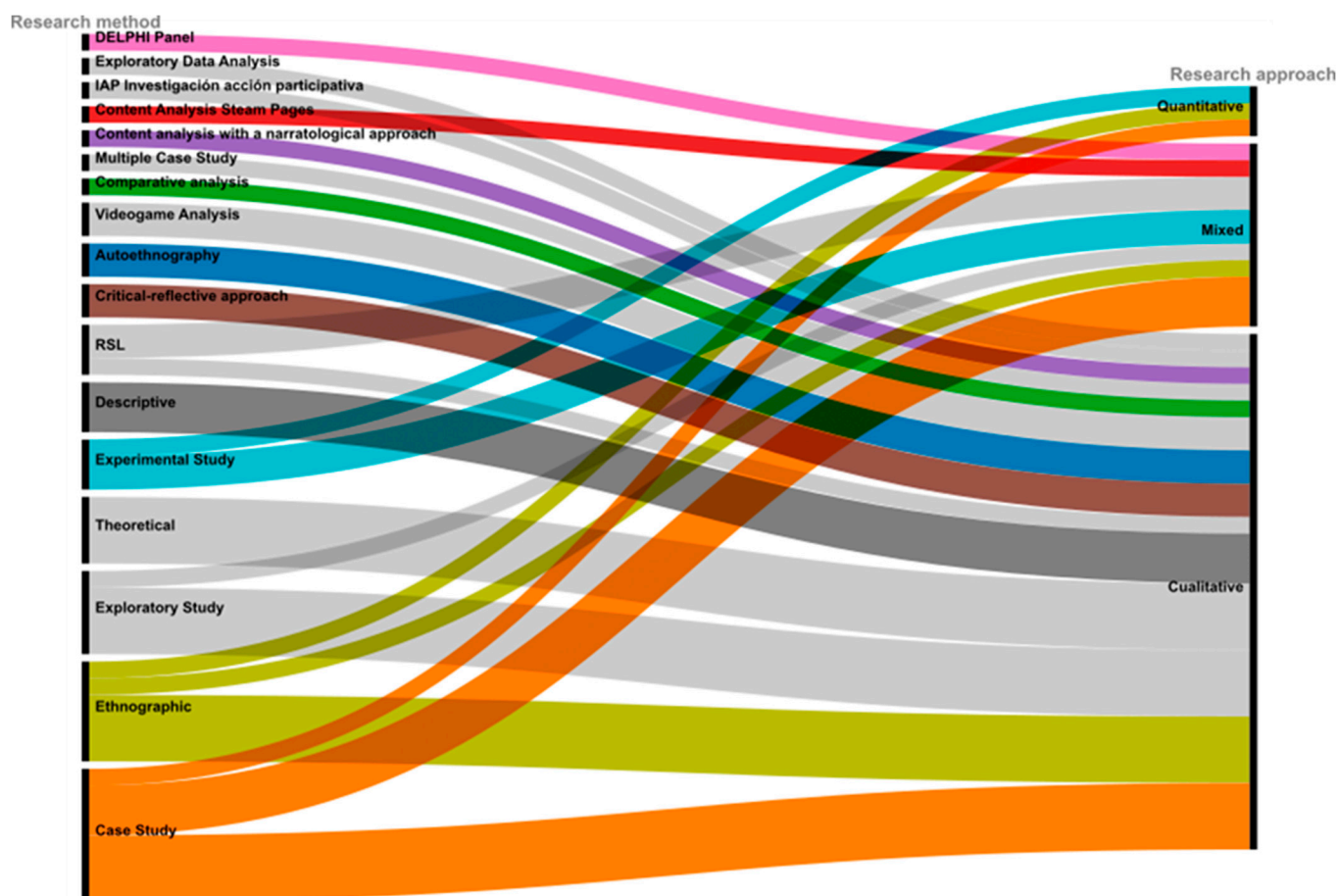
**Figure 6.** Interrelationship between research methods and techniques.

3.6. RQ6. How Are the Video Games Introduced and How Do They Interact with the Objects of Study?

In order to analyse this form of introduction, categories were established based on the objects of study. This made it possible to differentiate between digital game-based learning or DGBL, simulators, serious games, blog analysis, etcetera. Specifically, the most commonly used form of introduction was direct introduction, categorised by the researchers as DGBL: video game and accounting for 35.56% of the studies. This was closely followed by the creation of video games at 17.78% and DGBL for serious games at 17.78%. Some studios merge DGBL with the creation of their own video games at 4.44% while blogs and simulators represent very low portions of around 2.22% for each form of introduction.

Studies that did not make a direct introduction of the video game, which often include theoretical studies and other research not focused on the video game and its use, accounted for 17.78%.

3.7. RQ7. What Technology Associated with the Video Game Is Used?

In order to answer this question, it was necessary to differentiate between the direct use of video games, their creation and the study of their elements or socialisation environments. In this way, the research allowed us to identify that the direct use of video games and their study represented the highest percentage of the 45 studies reviewed at 55.56%. In total, 15.56% used video game creators and analysed the process, and 22.22% of the studies analysed the video game environment and associated productions such as the creation of blogs, wikis or forums, the content of YouTube or Game Jam and the situation of the industry itself. In total, 6.66% could not be categorised as they were reviews of the literature with different perceptions or objectives and could not be categorised.
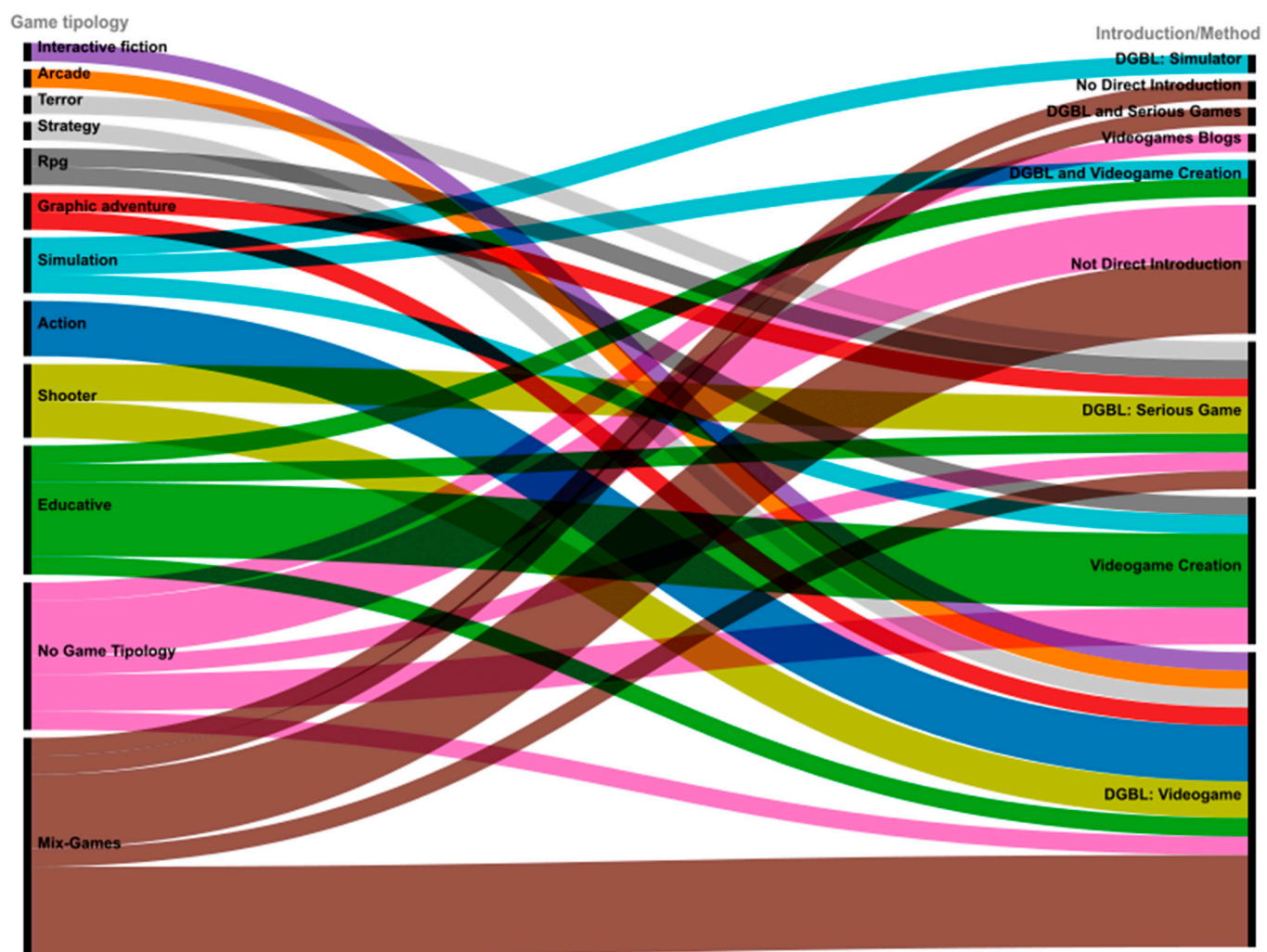
Figure 7. Relationship between video game typologies and methods of introduction use.

3.8. RQ8. What Are the Titles or Video Games Used?

The analysis of the titles and video games analysed was so extensive that it should be presented in subsequent research; however, the researchers identified a trend that can be stated in this study. This trend is manifested in the prevalence of narrative and war titles that mostly represent dominant cultures in the video game industry. The United States is undoubtedly the big winner in this area, with its productions accounting for 50% of the studios analysed. Of the 45 studies included in the final sample, 10 analysed war games produced in America narrating conflicts from an Americanising perspective. Only three of them included video games that depicted non-Americanised representations of conflicts. In total, 22.22% of the total mainly analysed the Medal of Honor, Call of Duty or Ghost Recon sagas and left a small space for productions such as This War of Mine and other stories with a different cultural perspective.

Research on well-known North American sagas such as Red Dead Redeptiom or GTA is also common in these studies; 17.78% of the studies include one of these games of American origin and representational culture [34,35].

There are Japanese titles such as Final Fantasy, which, despite being a mass game, makes a very diverse cultural reinterpretation, taking elements from different religions and cultures [36].

The rest of the proposals are very unevenly divided between research that involves the creation of a video game through tools such as Roblox or Unity [37] and research that serves to represent and highlight minority cultures [38]; these video games that are not so massive,

and with a very specific cultural perspective that is little-disseminated, opens the way to a representation of minorities and cultural peripheries in the video game industry with proposals such as Dominations, or an analysis of the representation of women throughout a long list of games about vampires [39]. Spanish culture is represented in The Foolish Lady, a video game based on a play by Lope de Vega [40].

3.9. RQ9. What Is the Cultural Theme Being Studied and Represented in the Studies Analysed?

The identification of cultural themes requires detailed analysis due to the thematic diversity of the objects of study and the great variety of themes obtained in the formal analysis. Figure 8 is intended to shed light on this fact. In order to reach a consensus on the most representative cultural themes, several full-text readings were necessary, as the researchers had to agree on which cultural theme was represented in each study. After generating a debate and subsequent consensus on these themes, it was concluded that militarism and ideological transmission are the most repeated cultural elements at 26.67%. By contrast, other elements, such as audiovisual culture or "Game culture", represent 13.33%. The rest are particular and minority interpretations of elements such as the Japanese, Portuguese, Mesopotamian culture or Spanish or North Korean popular culture; representations of specific cultures and geographical areas together account for slightly less than 20%. Some studies on sculpture, architecture, religion or theatre, all with rates of less than 2.22% and being too scattered, did not allow any decisive conclusions to be drawn.

3.10. RQ10. From Which Dimension Is the Cultural Approach Carried Out

The researchers identified a total of 15 cultural dimensions, which are set out in the coding section of this question described in the aforementioned table. Categorising these studies on the basis of cultural dimensions made it possible to identify the dimensions from which video games approach culture.

The dimension associated with ideological discourses was completed with a total of 12 studies, representing 26.67%, which is the most repeated cultural approach, followed by the audiovisual approach at 22.22% and the ethnographic approach at 13.33%. Literary approaches were reduced to 8.89%. This was followed by feminist studies 6.67%.

Other representations, such as architectural representations, artistic representations, human beliefs and the development of emotional competence, represent a very small, individualised percentage at 4.44%. This was only lower at 2.22% in the case of the approaches made in the dimension of terror narratives, values and care for the environment. Figure 9 shows the relationships between the cultural dimensions and the indexation quartiles.

3.11. RQ11. What Results or Conclusions Do Researchers Obtain in Relation to the Culture-Video Game Binomial?

The culture–video game binomial is the main object of study in this research group and particularly of the Thesis within which this work is framed. It could take years of research and development to resolve a small part of it, but preliminarily, and on the basis of the studies analysed in this research, we can already reach some key ideas about this relationship, which are set out more extensively in the conclusions of this work.

The results obtained and analysed by the different studies reviewed show that video game is a powerful element of cultural dissemination, which has many diverse ways of reaching the population. It approaches culture from environments as different in cultural reproduction and transmission and does so both inside and outside the classroom. In the process, it works not only from the reproduction of content but also from the creation of video games and experiences of its own, representing both mass and minority cultures. And as if that were not enough, the relationship between video games and culture also manifests itself in the creation and generation of new cultural contexts associated with the groups or subcultures that are generated. This, in itself, makes the video game an element capable of generating and modifying cultural perceptions.
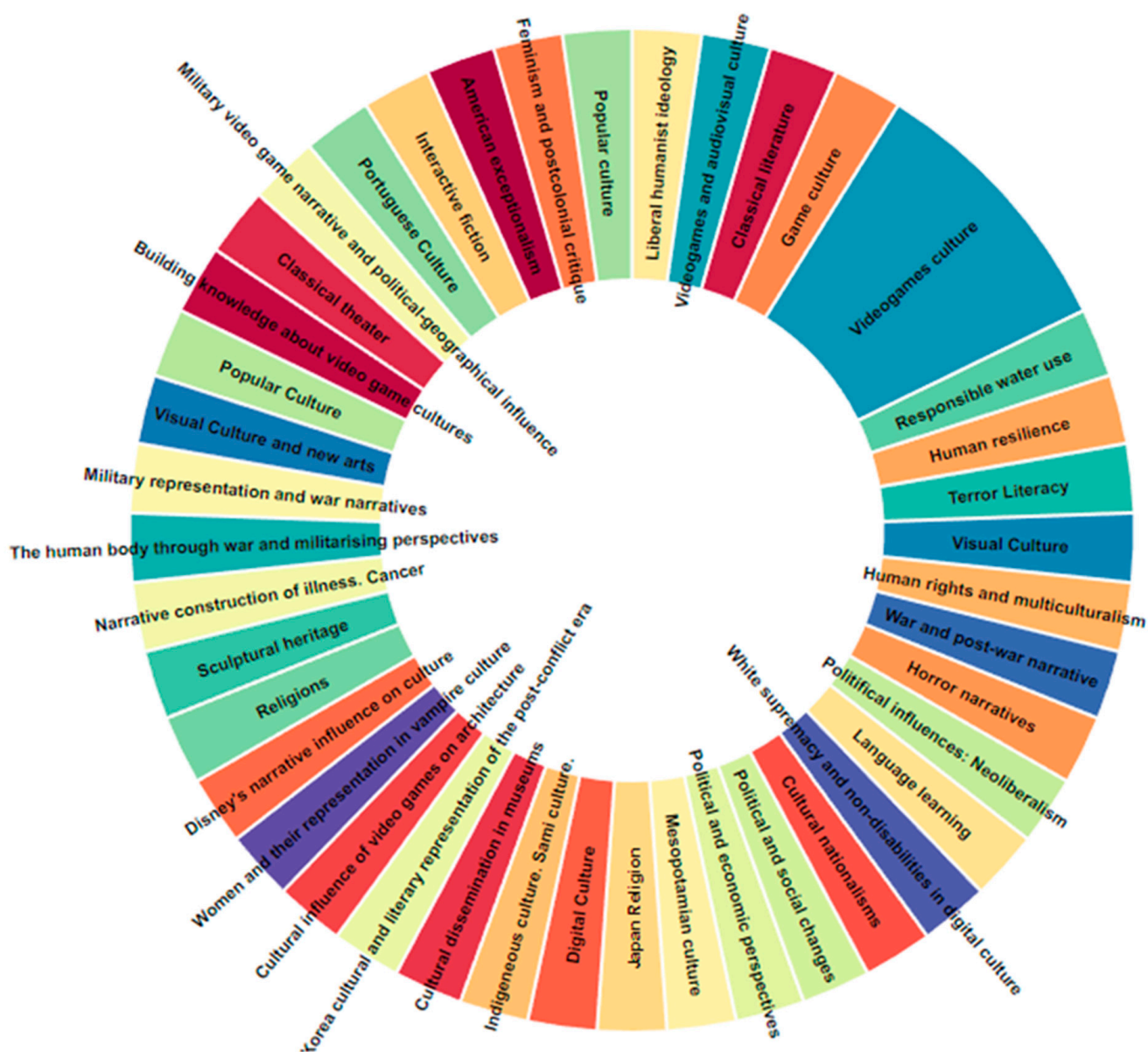
Figure 8. Cultural representations or themes identified by researchers.

Specifically, it is observed that video games produced in English gain notable advantages, especially when using domain-specific programming languages, but also because of the dominant position of their industries worldwide. This suggests a correlation between the language of development and the success of video games in the global market and culture.

The research reviewed shows that video games can contribute to knowledge building and foster collaboration between players, leading to a better understanding of their own lives and realities. This aspect highlights the importance of video games as effective educational tools, especially in the transmission of cultural aspects.

Furthermore, video games based on social interactions have been found to have the potential to trigger positive emotions such as joy, satisfaction and enthusiasm in players. These emotions contribute significantly to increasing players' motivation and interest, which supports the idea that the social dimension in video games is a crucial factor in their cultural impact. Such is the impact that video games are even considered tools for building resilience and self-acceptance [41].
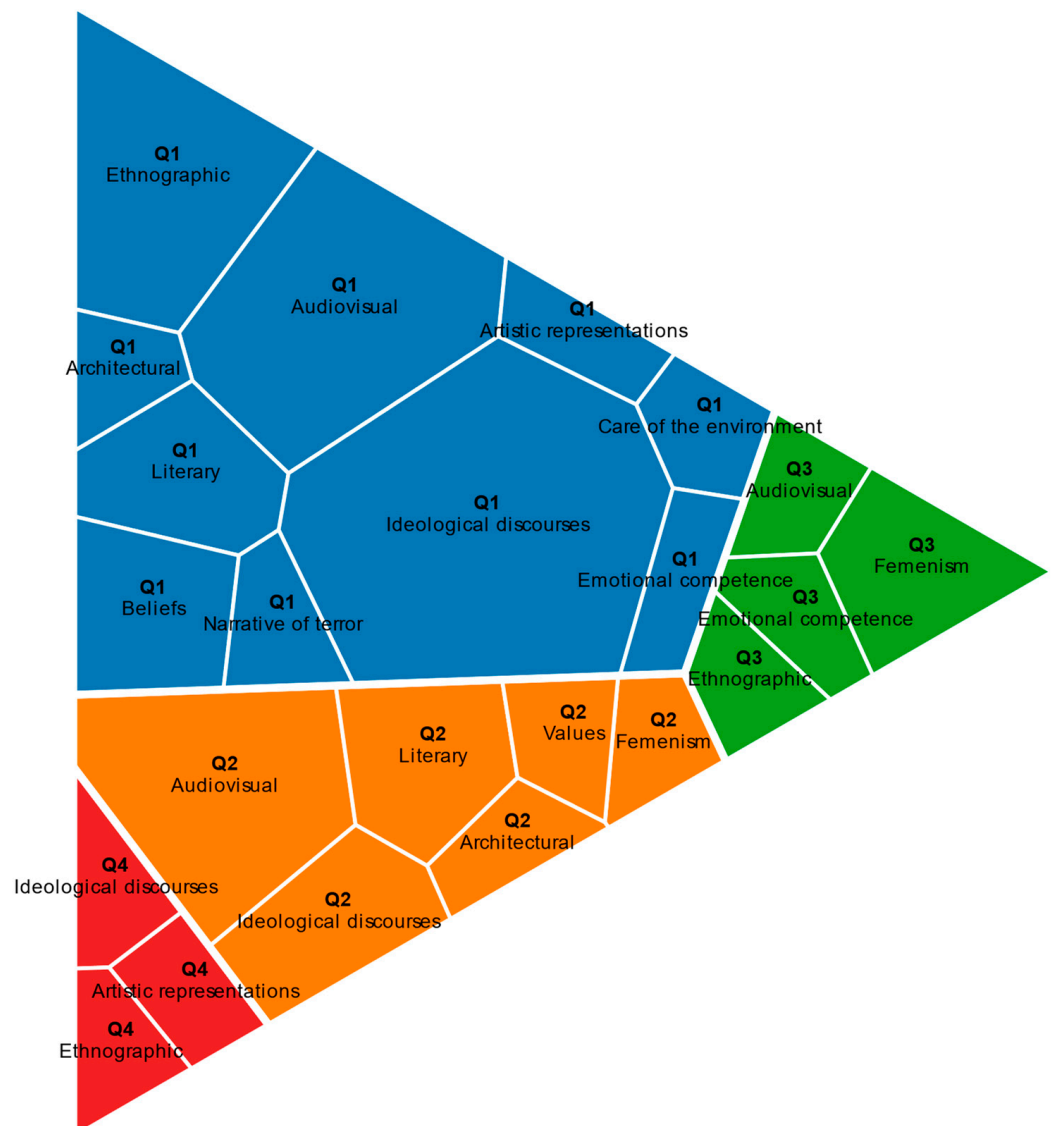
Figure 9. Relationship between cultural dimensions and publications and their indexation.

On the other hand, it is evident that the video game industry exerts a significant influence on the production of games for different genders and on the cultural construction around these genders. This determines how video games can reflect and perpetuate cultural norms and gender stereotypes, as well as influencing players' preferences [42]. However, it is the latter who must decide how to interpret the messages received, which makes the video game not only a disseminator of the message but also a means to expose it to criticism and reflection [43].

Gaming tendencies vary according to culture and gaming preferences and are often structured around specific productions and cultural contexts. This indicates that video games have a cultural impact on how people spend their leisure time and relate to digital entertainment. But video games also generate their own culture and influence the socio-cultural profiles of players [44]. Studies on visual culture or gamer culture support this, identifying not only the medium, but also production, gameplays, wikis, forums and other environments as an object of study that allows them to define the profile of players and the cultural content they generate [44–46].

The results also indicate that video games are considered part of culture and that they influence the perception and understanding of the world. These games can serve as

powerful tools to transmit values, foster empathy and identification with characters and situations, and contribute to the construction of cultural and national identities.

In summary, research on the culture–video game binomial reveals a series of results that highlight the importance of video games in today's society. These results range from their impact on education and the construction of knowledge to their influence on politics, religion, the perception of illness and culture in general. Video games ultimately emerge as powerful cultural tools that influence various aspects of contemporary life and perceptions of reality.

3.12. RQ12. Is There a Direct Impact between Video Games and Human Culture?

Therefore, the answer is yes. There is a direct impact between video games and human culture. Although there is still not enough research on the subject, the conclusions of our study and some of the documents analysed allow us to affirm that there is a direct impact. It is also possible to differentiate two groups and ranges of scope.

Firstly, there is a general and global impact developed by the most commercial and extensive productions on the market. With greater dissemination and extension, multi-platform access and large financing campaigns, they allow their message to reach a large number of audiences. They transmit often ideological and cultural messages that have an impact on society by constructing an intentional image of different cultures or historical events, such as the World Wars, Terrorism or American Exceptionalism.

On the other hand, this study has made it possible to identify what are known as specific impacts. Specific impacts are those that are made on small portions of content, with a low diffusion but greater impact. They are mainly associated with minority cultures, with little representation in society, and which have often been biased or manipulated. But they find in video games an opportunity to show themselves to the world and to endure over time. In this way, some video game development and research proposals such as the Sami Game Jam [40], or the video games Primeira Armada da Índia [47] or The Rights Hero [48] exemplify that there are spaces beyond the commercial industry to develop video games and culture, indigenous culture, Portuguese culture or social and emotional values in the struggle for human rights and non-discrimination.

4. Conclusions and Discussion

The main objective of this research is to analyse the relationship between video games and cultural transmission, investigating the motives, origins and cultural assets, as well as the impact of video games as a means of dissemination in the transmission of human culture. To this end, a systematic review of the literature was carried out to answer 12 research questions. These questions covered hot spots or terms in the literature, including the thematic scope of the journals and their positioning, their geographical location, and the methodological and technological characteristics of the studies carried out. In addition to that, this study sought to identify the cultural themes transmitted through video games, which are reviewed by the researchers, categorising the cultural dimensions and the procedures for their introduction into society to analyse the results and identify the impact of video games on culture.

The answer to all these questions has already been stated in the previous section, so in this last section, it is time to identify the most relevant findings of this research and relate them to each other.

First of all, we must relate our conclusions to the previous studies mentioned at the beginning of this article, concluding that this research has been able to confirm the initial preconceptions established around the research that point to video games as a powerful means of ideological transmission and dissemination [24,25]. And confirming that there is intentionality in the political–cultural development that is established around the production of video games [28], our study manages to enunciate and clarify these relationships thanks to the establishment of elements such as the most reproduced dimensions of cultural approximation and the study of the origin of publications and video games analysed or

their socio-cultural impact. It also explores the means for the use and analysis of video games both within and outside formal and educational contexts.

Having stated this general idea, it is very relevant to identify the journals involved in the topic of study of cultural, social science and communication journals. But it is also important to identify the environments and connections that exist between these articles. They highlight that cultural studies, game studies and new media of visual representation claim their space in modern culture and are directly interrelated with video games. The fact that 82.21% of the studies were published in journals in quartile 1 or (Q1/Q2) is representative of the fact that these are high-impact studies that generate a high level of interest in society and researchers.

On the other hand, the analysis of the areas or countries of publication reveals some relevant data on how research is conditioned by the characteristics of the research environment under study, the number of productions and their development. It is striking that although Spain is the country that publishes and researches most on culture and video games, only one of the objects of study focuses on its own culture.

With regard to methodological approaches, it is striking that qualitative studies predominate, to the detriment of quantitative studies, and that, in addition, most of these studies do not use samples or study populations that allow a direct impact on the assimilation of content or other factors to be measured. This identifies the need for an initial significant study for this thesis, which is to carry out a broader and more concrete study on the direct impact of video games on the consumer, which could have a mixed or quantitative component.

However, the wide variety of techniques and methodologies used allow for a very broad and diverse conceptual approach to the subject. A large number of resources and research methods are available. Although the preferred means of introduction is the direct introduction or DGBL, based on the subsequent study, it is true that these studies are not only structured around the video game as a tool already created.

From the educator's perspective, a total of 12 research studies with educational objectives were analysed in this study. That is to say, 26.67% of the studies responded directly to research carried out in educational environments and with educational intentions, which demonstrates the close link between video games and the educational system and allows us to state the acceptance of researchers and teachers of this medium as a tool for cultural transmission and assimilation.

The role of methodological approaches and research that approach the problem from the perspective of video game design using video game creation tools and software allows them to create their own content and is also very relevant. This type of research and methodologies sets a reference as well as a fundamental tool for educators and for those who decide to research with video games. Its use is directly related to the transmission of non-dominant or peripheral cultural discourses or representations and allows us to identify a pattern of development that advocates minority proposals as a source of more diverse and inclusive cultural dissemination, reflecting all cultures and societies.

The most repeated titles and video games make it possible to identify and refute a previous idea; there is a predominant discourse and narrative in video game design, and it is in the hands of society to assimilate it as valid or not, for this it is important to verify those productions or ideas that are on the margins of the mainstream industry. This idea is based on the fact that most video games are produced in specific sectors, such as North America, Japan and Western Europe, which are politically and socially dominant geographical areas.

This study has also managed to establish a table with 15 dimensions from which video games approach culture. This categorisation makes it possible to identify those dimensions that currently prevail in the cultural dissemination carried out through video games, placing the reproduction of discourses and ideological messages as the most repeated cultural approach; whether or not this is the case in the future is something that will have to be elucidated by future research, which will be able to take the dimensions already established

as a reference. This work is particularly significant and useful for researchers who, from now on, will not have to construct studies similar to this one from a vacuum.

Finally, as can be seen in the last two questions, after this research, it can be affirmed that video games have a direct impact on the transmission and assimilation of culture. In addition to the results presented above, on which no further discussion is considered, the aim is to expose the elements implicit in the process of the assimilation–transmission of cultural elements intrinsic to the video games that have been identified.

This study has identified three agents that intervene directly in cultural construction and that are reflected in the studies analysed. These are (1) the interlocutor or end consumer, (2) the researcher or video game developer and (3) the previous experiences or cultural heritage of both developers and consumers.

Having defined the impact of video games on human culture, this research identifies the impact of video games from their design, focusing on the origin of cultural manifestations and the directionality of the communicative intention with which video games are made and developed. It is important to differentiate between two types of productions as follows: (1) large-scale productions and (2) minority or peripheral productions; in this differentiation lies a large part of the basis of the study. Distinguishing these two types of productions is to distinguish the intentionality of these productions and is a first step to understanding the impact of video games on culture.

Large-scale productions are easily recognised by a marked context and cultural heritage, in which the message implicit in the video game is launched to players with a clear intentionality both in productions aimed at the general public and in more modest productions to impose or extend an idea [22]. However, it is in these larger productions where these issues are more embedded due to the fact that their scope is undoubtedly greater, as well as the economic or socio-political objectives that drive them. In this case, the industry is guided, albeit to a lesser extent by social demands, with commercial and political demands deciding which narratives or cultural spaces are or are not represented. This has an impact on society and the interpretation of certain aspects of society.

Small productions can be developed either by small video game studios or by developers independent of the big industry who seek to create their own games with their own characteristics that may not fit into the general standards or typologies of marketing companies operating in the market [48,49]. In both cases, there is clearly an intentionality, but this is not market-driven and is often found on the so-called periphery or social-political margins. This allows them to move away from stereotypical messages and cultural representations and to embrace the representation of minority or marginalised cultures [25].

On the other hand, the process of the transmission–assimilation of culture is not only nourished by the intentions of the development agents involved [13]. It is also built on the basis of the interactions that consumers have with the environment. Additionally, considering the directionality of these interactions, in this study, we identify directionality from the inside out and from the outside in.

In the first place, we can identify the directionality that emanates from inside the video game toward the outside. The content a video game produces can be related to an already known culture or develop a new culture associated with the game environment; a living example is the so-called gamer culture [15]. This directionality is represented by the creation of wikis, forums or video game transmission through Youtube, Twitch, and so on. These construct a new corpus with new ways of interacting, addressing someone, consuming content, and so on.

Specifically, we speak of directionality from the outside when video game studios or developers are influenced by specific aspects of the culture of their area or social moment [22], as well as when they intentionally study and take elements from specific cultures that directly influence their design work. There are many examples of this, such as when the object of interest was the Wild West, the dehumanisation of war and conflicts or very recently, the interest of the general public in Viking people and myths. These patterns of

choice or development always combine with a greater number of productions focusing on a particular culture.

Finally, the interpretation of the players comes into play, which is influenced by the two previous processes as well as by previous personal experiences and self-concept or critical thinking skills [13,15]. Thus, a modern Call of Duty video game set in the Middle East is not understood in the same way from the perspective of a North American player as it is from the perspective of a European or Eastern player. The player's own cultural background has a direct influence on how he or she interprets messages implicit in the video game.

To conclude, these researchers consider that in the future, it is necessary to carry out new literature reviews that analyse a changing and evolving context in which the irruption of new media, forms and interests substantially modifies the cultural impact of video games. In a globalised society, it is complex to determine what the new dominant discourses could be, but research has the task of exposing these situations. It should also be borne in mind that although the research questions were broad and strongly debated, their specific nature may have left behind points of interest or points of study that could be analysed. In subsequent reviews, it is necessary not only to analyse such points but also to consider new media or developing spaces that are yet to come, such as the full implementation of virtual reality, haptic technology or the development of artificial intelligence within video games, which, for example, may give rise to generative AI within NPCs, Non-Player Characters, that restructure intrinsic cultural meanings.

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