



Exploring Saudi Gamers' Perspectives on Historical Characters in Digital Games

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ABSTRACT

Digital games have recently increased in popularity, becoming a cultural phenomenon and a new way to explore historical characters, which aligns with the ambitious Saudi Vision 2030. This study aims to understand Saudi gamers' perceptions of historical characters and the factors that shape their preferences. A quantitative descriptive approach was used, where a questionnaire was applied to 104 individuals who participated in events organized by the Saudi Digital Games Association and the Saudi Esports Academy. The results indicate that historical characters can enhance the appeal and engagement of digital games. In addition, they highlight the need for developers to gain insights into Saudi gamers' preferences regarding historical periods and historical characters' characteristics. It was concluded that the dynamic interaction between players and the virtual world of the game, which includes historical characters, can increase the attractiveness of the game and the players' experience at all levels of entertainment, culture, and historical knowledge, reflecting the distinctive features of Saudi history. Future studies focusing on other elements of the digital game, such as story, period, or aspects of tangible and intangible heritage, are suggested.

Keywords: Digital History; Heritage; Video Games; Historical Characters; Saudi Arabia.

INTRODUCTION

Digital gaming has become increasingly popular, offering promising potential in both investment and the entertainment world (Cheah, Shimul, & Phau, 2022; Yuzyk & Seidner, 2022; Wang, Khoo, Liu, & Divaharan, 2008). In addition to technical developers and investors, digital games have attracted the attention of humanities researchers as a social and cultural phenomenon (Arjoranta, 2014). Researchers view digital games as a new type of historical content for historians and an application of digital history, the emergence of which is bound to technological development (Danniau, 2013). Digital games are typified by interactivity, a feature that allows the player to dynamically join in occurrences within a historical context, an experience different from references from written or visual history (Chapman, 2016; Gee, 2006). Subsequently, digital games have become crucial for raising historical awareness and reenacting history using technological media through which historical knowledge is presented.

Digital games are a form of digital interaction that offers players an active space to participate in stories with various historical dimensions. Digital games benefit from historical stories and diverse cultural heritage and present real historical or fictional characters in a historically documented setting (Mortara et al., 2014). They are considered a form of living history, and in recent years, numerous games have fully integrated actual history into the story's context (Chapman, 2016). Some notable examples are the Age of Empires, Assassin's Creed, Civilization, Ghost of Tsushima, and Red Dead Redemption (Wolf, 2015). To analyze the status of historical digital games, Rochat (2019) analyzed 1,690 historical digital games released from 1981 to 2015 on all digital gaming platforms and confirmed the growing interest in history-themed digital games. Moreover, the popularity of historically themed digital games demonstrates that people are interested in past and historical characters, whether local or global and that a digital game can be a direct route to reach a wider audience (Erickson, 2023;

Islam, 2023). In addition to being fun and enjoyable, history-based games offer players experiences that can help them retain information and build empathy for historical characters. A well-designed game can prompt a player to begin or continue researching the era, historical characters, and locations they visit in the game (Mitchell, 2012).

Nolden and Pfister (2015) highlighted that including games categorized under the “history” niche in the global market. Academics have demonstrated that these games develop a historical culture, reduce historical consciousness, and create a shared cultural picture between gamers and history (McCall, 2018, 2022; Nolden, 2020). Chapman (2016) studied the present phenomenon of the success of history-themed video games among youth and found that they attract millions each year, which is more significant than all other historical products, including books, studies, novels, documentaries, films, and websites. Other studies also confirm that history-themed games can capture youth interest (Adachi & Willoughby, 2017; Prot, McDonald, Anderson, & Gentile, 2012).

In recent years, the digital gaming industry has been booming in Saudi Arabia (AlKhamees, 2023; Al-Khamees, Yecies, & Moore, 2023; Elshaer, 2023), creating more games that feature the history and heritage of the Kingdom. Examples include *Unearthed: Trail of Ibn Battuta* from Semanoor Studio, Quraish, which, in some of its phases, deals with the life of Arabs before the emergence of Islam on the Arabian Peninsula; educational games within the “Our Vision” application under the “Antame” program, which include history themes; and the *Al-Qatt Al-Asiri Art Game*, developed by Player One Studio, with a game series focusing on both past and present that is rife with varied traditions, local arts, and eternal stories (Kasmiya, 2021a, pp. 822-823; Kasmiya, 2021b, p. 888).

According to Beavis, O’Mara, and Thompson (2021), digital games are considered a critical or significant way of recreating historical worlds, given that these games contain different aspects of history. Interacting with historical characters makes it possible to create games where the players have to meet these historical characters in one way or another in an engaging manner that also challenges them to think critically. As an artifact of historical culture and from the angle of analyzing how history informs the representations of historical characters in games.

Despite the growing interest in the relationship between history and digital games, the researcher has observed that an important component of digital games has not been widely studied: historical characters, which constitute a significant element of historical narratives. The author defines these characters as individuals from a specific period in the past, characterized by their appearance, which aligns with the norms of that era, including their costumes, tools, lifestyle, language, and other distinguishing features.

The researcher is interested in the intersection of history, culture, and technology by portraying historical characters in digital games. These characters offer a distinct opportunity to integrate historical accuracy with immersive storytelling, thereby enabling players to engage with the past meaningfully and honorably. They serve as conduits for presenting historical facts in a dynamic and interactive form, enhancing the longevity and impact of historical narratives.

As the gaming industry continues to expand, a growing potential exists to develop nuanced and culturally relevant representations of historical figures. This study underscores critical considerations such as authenticity, ethical concerns, and narrative construction, which are vital for ensuring that digital games function as credible and impactful mediums for historical representation. By exploring gamers’ preferences for historical characters, particularly within culturally specific contexts like Saudi Arabia, this research contributes to a broader understanding of how digital games can effectively reconcile historical accuracy with player engagement. The researcher's work emphasizes digital games’ significance in promoting cultural heritage, enhancing historical awareness, and addressing the complexities associated with representing history in the gaming landscape.

This research tests and establishes the perceptions and choices of Saudi gamers in a community of historical characters included in the game. To date, very few studies have been conducted on the specific cultural and historical dynamics that inform the engagement of players in a region such as Saudi Arabia with historical narratives. This research is deemed paramount as it provides insights into the specific factors related to historical characters that appeal to Saudi gamers while observing aspects that are reminiscent of or different from those observed in Western gaming cultures. This study contributes to the general discourse on digital history by investigating the use of digital games in Saudi Arabia for cultural preservation and education. Through this exploration, this study attempts to inform the Saudi gaming community by advising game developers on how to better propagate local historical figures in a manner that befits players’ engagement, thereby encouraging a more inclusive approach to the digital history of the global gaming industry.

This research aims to examine gamers’ perspectives on the portrayal of historical characters in digital games, focusing on the perceived authenticity, engagement, and impact of these characters, while identifying key factors influencing their representation and success. And was guided by the following research questions:

RQ1: What factors create interest in historical characters in digital games from the perspective of players?

RQ2: What is the importance of designing local historical characters for digital games from the perspective of players?

RQ3: What are players' preferences for the portrayal and design of historical characters in digital games?

LITERATURE REVIEW

Significance of Historical Characters in Digital Games

Historical figures appear for several purposes in digital games. First, it produces immersion and authenticity. According to Pfister (2020), the accuracy of history helps digital games reach a state of authenticity, at which point players are entirely immersed in the games. This level of authenticity enables players to better understand the past from the perspective of historical characters present in the games (Stirling & Wood, 2021). By tying their narratives to real-life events or personages, games like “Assassin’s Creed” plunge a player into the throbbing heart of history and thus make it more vivid and real. Besides, they can raise interest in history, especially among adolescents, who find traditionally presented educational texts unengaging. According to Kondyli (2020), historical games often act as “memory mediators,” influencing how contemporary audiences perceive and remember history.

Spanos (2021) further notes that historical characters in digital games play a critical role as historical sources and can represent variant past views. While traditional history often focuses on dominant narratives, games may give a chance to learn about the lives of underrepresented figures. For example, “Never Alone” tells the story of Iñupiaq culture through its protagonist, Nuna, which again evidences how digital games can represent marginalized people’s voices. This ability to focus on lesser-known figures helps toward a more nuanced understanding of history.

Representation of Historical Characters in Digital Games

The representation of historical characters in digital games can be very different. Some try to be historically correct, while others create new figures to please their audience. In the game “Total War or Civilization,” historical leaders like Napoleon, Gandhi, or Cleopatra are put into an environment that fits a specific strategy. These representations often mix historical facts with creative liberties and paint history as a linear occurrence (Rollinger, 2020). Some scholars still argue that these representations often perpetuate inaccuracies or oversimplifications. For instance, some individuals mention that games such as “Assassin’s Creed” may sacrifice historical accuracy for cinematic appeal and create a “history lite” that caters to entertainment rather than education. However, these representations often create curiosity for players to research the actual history of the characters and events depicted. Besides, digital games often raise ethical questions to do with historical events. For example, “Call of Duty: World War II” struggles to represent war without glorifying its violence, a tightrope it walks that underlines the sensitivity of recreating historical narratives. Such portrayals reflect the growing maturity of the medium as developers attempt to navigate the complexities of history responsibly.

Reflection of Historical Characters in Digital Games

Attributes within gameplay mechanics always determine how historical characters are viewed. For example, “Civilization VI” is the training of historical leaders, and the players’ abilities are diplomacy, war strategies, or invention. Often, these traits conform to the generally held perception of these personalities despite the implication that these are not entirely historically accurate. In contrast, historically accurate ambience is evident in games such as “Assassin’s Creed,” where all the stories portray a fictional character in a world with actual personalities (Zimmermann, 2021). These games turn history into an enjoyable and enacted process through interaction. This reflective approach turns assimilation into active search and is especially important in learning environments. Historical games also make it possible to design a space where a historical event is reconstructed by changing some of its occurrence elements and integrating historical facts (Peake & Korza, 2015). Thus, we see games like Wolfenstein that pose historical villains like Adolf Hitler in some fictional universe so players have something to process. There is, therefore, the ethical issue of portraying historical personalities in a legendary/dramatized context of their history.

Cultural and Educational Implications

Historical characters in games are of great importance for cultural discourse. For example, “Witcher 3: Wild Hunt” heavily relies on Eastern European history and folklore, embedding cultural elements into its narrative (Stevens, 2021). Games such as Red Dead Redemption 2 reconstruct specific historical moments, for example, the late 19th-century American frontier- and allow players to peek into the era's cultural and social dynamics. The

cognitive value of historical games is increasingly recognized as an educational tool. Researchers have underlined how they can help improve historical literacy through interactive storytelling. Bylieva and Sastre (2018) also note that digital games facilitate education through learning without noticing and by playing. In both cases, players acquire knowledge of the past and cognitive skills.

Designing Historical Characters in Digital Games

Historians who have opened communication channels with game developers have gained increasing attention. This cooperation has made it possible to present history in a novel form through multiple components, including stories, characters, events, tangible and intangible heritage elements, languages, and costumes. Historians have also emphasized how games help expand our understanding of history and provide new perspectives on key events (Hiriart, 2019). Conversely, some historians have expressed concerns about the faithfulness of games to historical truth and the negative aspects that digital games may present by adopting stereotypes or a unilateral view of historical events (Bainbridge, 2013). Game-loving historians and developers argue that developers must exercise a certain degree of creative freedom to make games attractive and entertaining (Nguyen, 2020). They believe that merging history with imagination does not conflict with historical authenticity but encourages players to think critically and ask questions about history (Spring, 2015). They support their stance by highlighting that most historical digital games provide vast amounts of documented historical information that players can browse and review (Coppstone, 2017). Moreover, a historical digital game is considered an enjoyable activity that enables laypersons to experience and interact with history by embodying a character and assuming a historical identity to navigate a series of events in a historical setting that creates emotions and promotes empathy between the players and history (De Schutter & Brown, 2016). In this context, Cassone and Thibault (2016) described and proposed a framework of relations between history and games, focusing on the three processes necessary to create a historical discourse and on the three translations that the past undergoes to become a game: perspectival, digital, and ludic.

METHODOLOGY

Research Design

This study employed a descriptive survey design, which is particularly well-suited for exploring gamers' preferences for historical characters in digital games within the context of Saudi Arabia. Given the lack of prior research in this specific field, the survey method was chosen as an effective approach to gather primary data directly from gamers. Descriptive research is especially valuable in such exploratory contexts, as it provides quantifiable data that can be analyzed to uncover trends, preferences, and perceptions. By utilizing this method, the study aims to address the research problem and establish a foundational understanding of the factors influencing the design and appeal of historical characters in digital games. This approach aligns with the objectives of shedding light on an under-researched area and providing actionable insights for future studies and game development.

Sample Selection

The study population included participants of events at the Digital Games Association and Saudi Esports Academy between November 2023 and January 2024. The study sample was selected according to the simple random sampling method. The sample consisted of 104 participants, in Riyadh, Saudi Arabia. Participation was voluntary, no incentives were offered, and participants were provided with clear and understandable information about the purpose and content of the study. It was declared that the data obtained within the scope of the survey would not be shared with a third party. The participants were informed that they would be free to withdraw from the study at any time. This study was approved by the PNU Institutional Review Board (No. 23-0821).

Data Collection

A survey was conducted using a questionnaire designed based on previous studies (Chapman, 2016; Cheah et al., 2022; Wang et al., 2008), taking into consideration linking it to the subject of history and character. The questionnaire comprised the following four sections:

1. Socio-demographic characteristics of the study sample
2. Interest in historical characters in historical digital games
3. The importance of designing local historical characters for digital games
4. Preferences for the portrayal and design of historical characters in digital games

The questionnaire consisted of closed-ended questions with yes, no, or maybe answers and statements rated

on a five-point Likert scale (1=strongly disagree, 2=disagree, 3=undecided, 4=agree, 5=strongly agree). In addition, participants were asked to add their views to enhance clarity regarding the reasons for preferring historical characters in digital games, aspects of attraction to historical characters, factors of preferring historical characters, and the relationship between digital historical characters and Saudi culture.

Data Analysis

SPSS was used for the statistical analysis. Descriptive statistics (frequencies, percentages, averages, and standard deviations) were used to interpret the data.

Reliability and Consistency

To verify the external validity of the questionnaire, academic experts reviewed and corrected it to elicit their opinions on paragraph clarity, association, importance, and suitability for the participants. Internal consistency was verified by calculating Pearson's correlation coefficients. The correlation coefficients ranged from 0.87 to 0.96, all of which were statistically significant at the 0.01 significance level, indicating the validity of the internal consistency of the questionnaire and its applicability. Cronbach's alpha (α) coefficients were used to calculate the reliability (Table 1).

Table 1. Reliability and Consistency

Dimension	Reliability	Consistency
Interest in historical characters in historical digital games	0.893	0.945
Importance of designing local historical characters for digital games	0.754	0.87
Preferences for designing local historical characters for digital games	0.928	0.96

RESULTS

Socio-demographic Characteristics of the Participants

Figures 1–5 illustrate the demographic characteristics of the research sample, and Figure 6 displays the survey participants' experience levels in digital games.

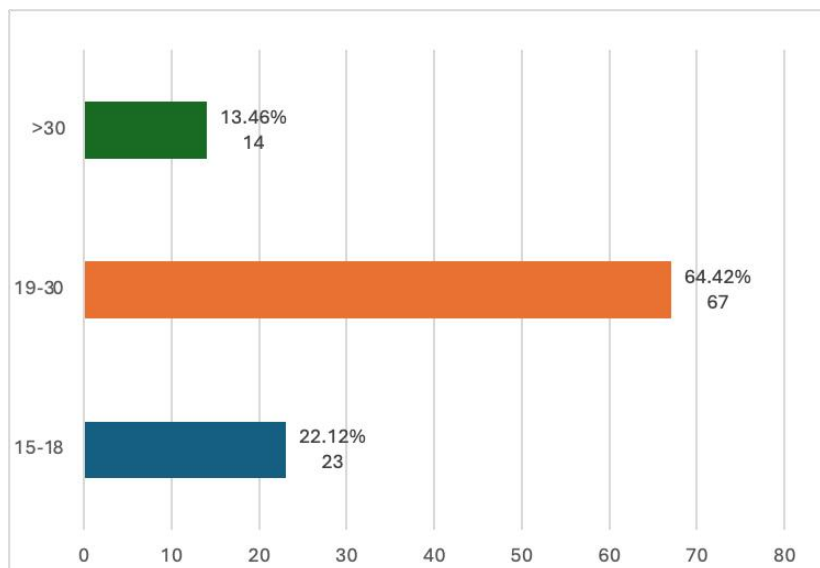


Figure 1. Respondent Age Range

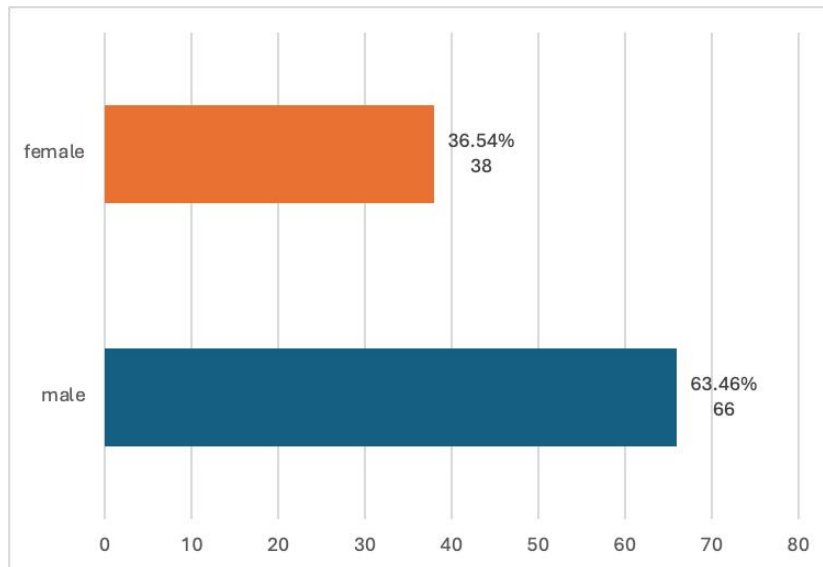


Figure 2. Respondent Gender

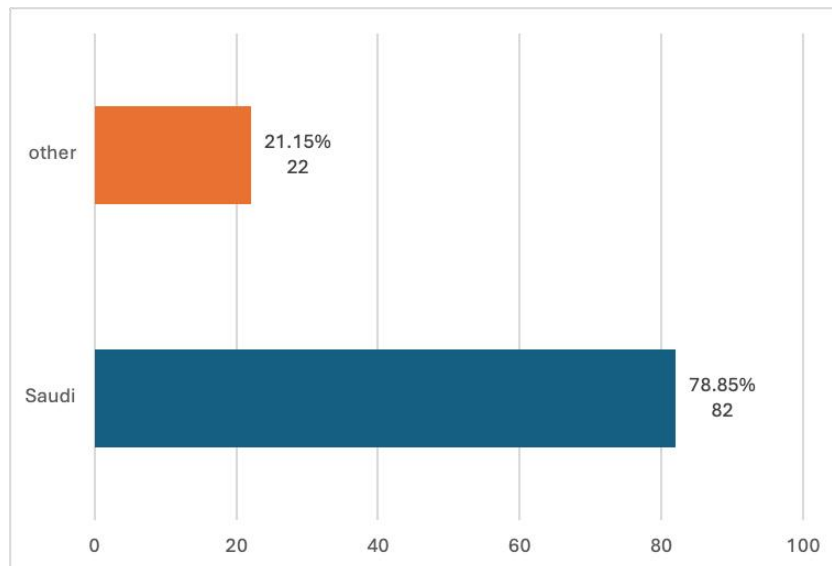


Figure 3. Respondent Nationalities

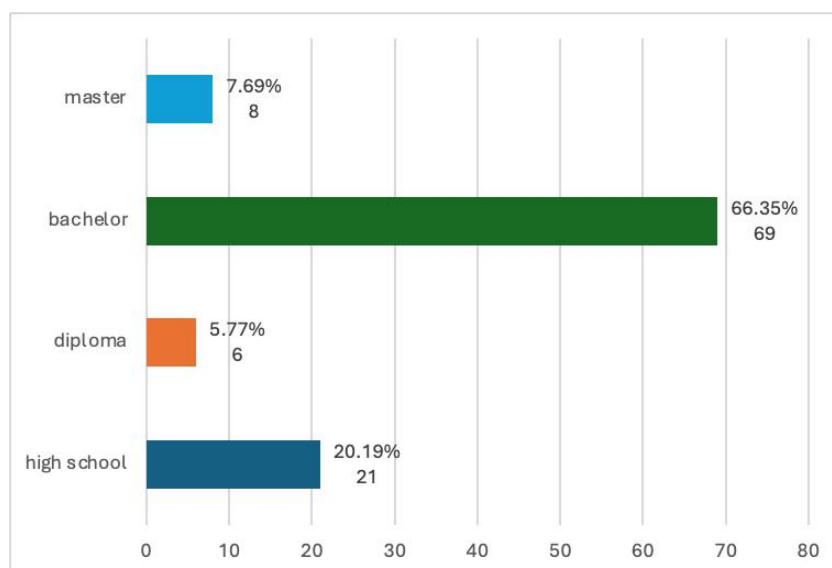


Figure 4. Respondent Education Level

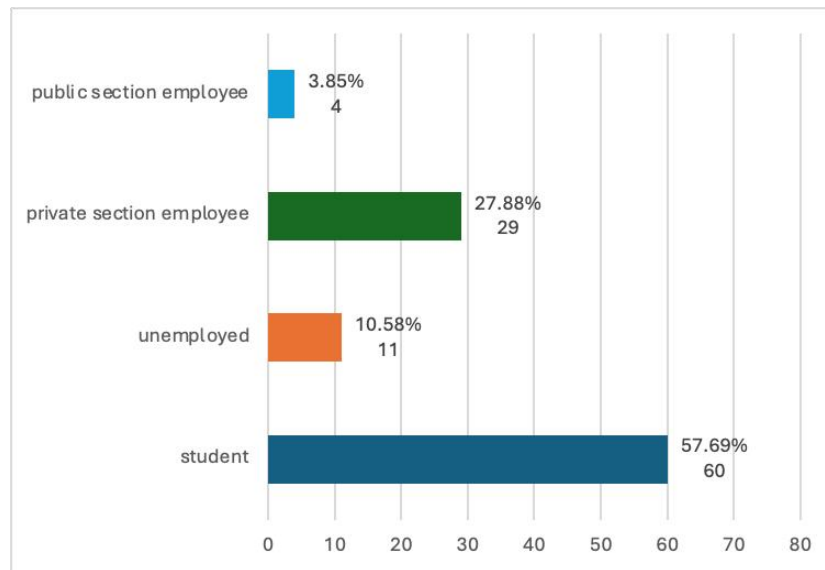


Figure 5. Respondent Occupations

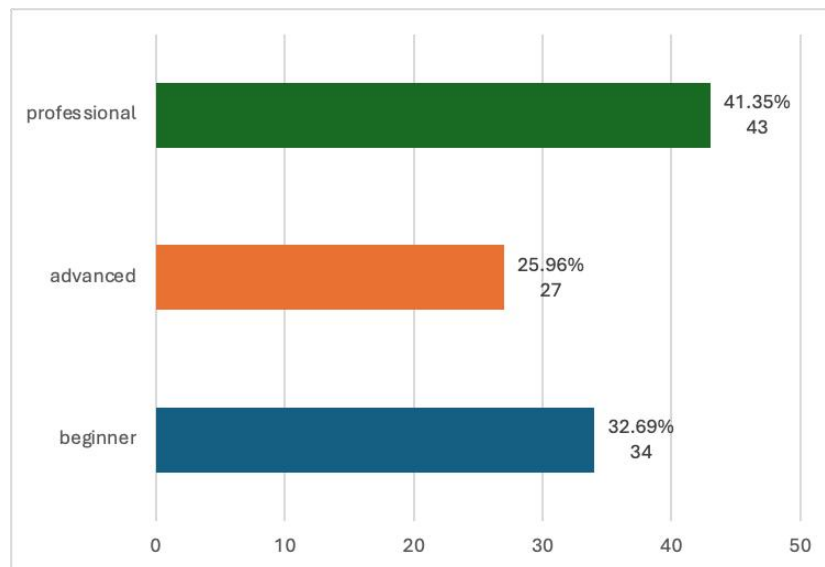


Figure 6. Respondent's Level of Experience in Digital Games

Factors Creating Interest in Historical Characters in Digital Games

Figure 7 illustrates the analysis of the participants' responses regarding whether the presence of a historical character adds value to the experience of playing a digital game. The results in Figure 7 indicate that most participants believed that historical characters added value to their digital gaming experience. However, a small proportion did not think so, and almost one-third remained undecided, indicating that they did not have a firm opinion on the impact of historical characters on games.

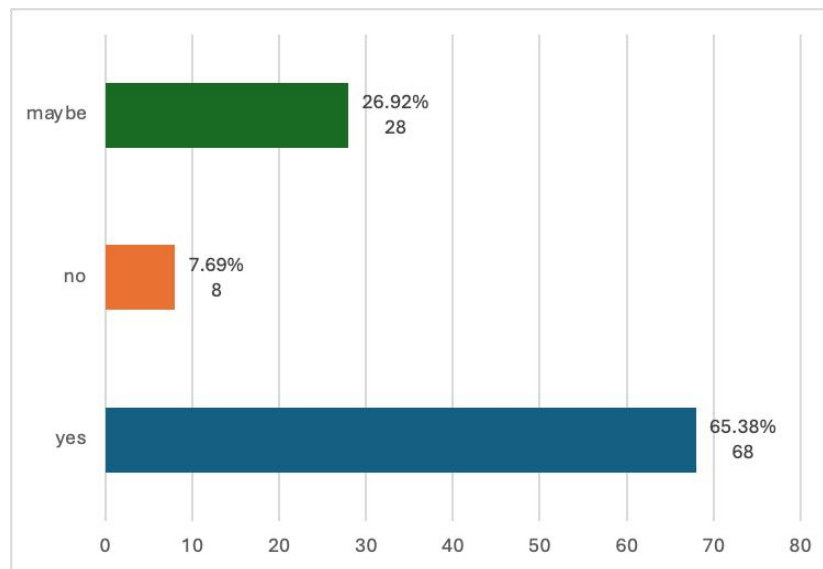


Figure 7. Improved Experience in Playing Digital Games with the Addition of Historical Characters

Figure 8 illustrates an analysis of the participants' responses regarding whether historical characters in digital games increase historical and cultural awareness in society.

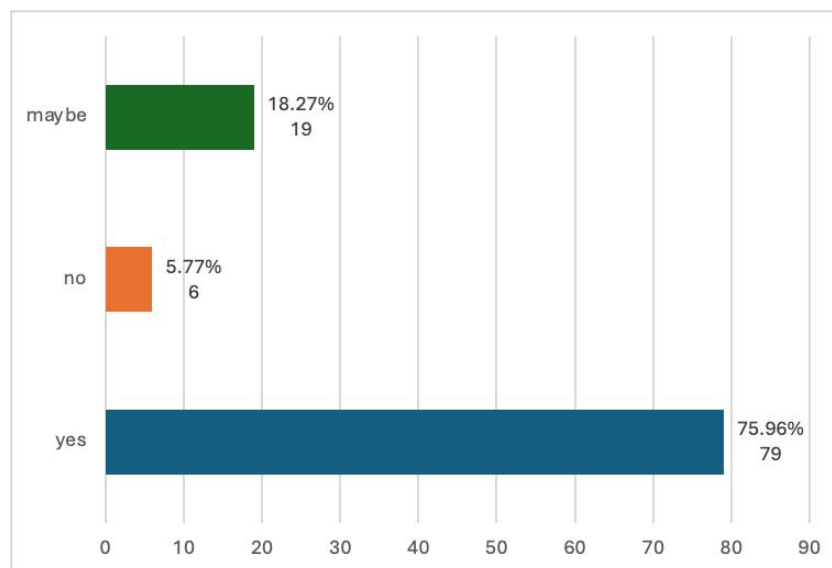


Figure 8. The Role of Historical Characters in Increasing Historical and Cultural Awareness in Society

The results in Figure 8 indicate that most participants believed that historical characters in digital games enhanced historical and cultural awareness in society. The fact that 76% of the participants answered “yes” to this question confirms the positive influence of historical digital gaming characteristics on historical and cultural awareness.

Table 2 presents the reasons for preferences for historical characters in digital games. The findings illustrate the players' desire to learn about real historical characters and the cognitive value they add to their gaming experiences. Participants indicated that historical characters make the story more compelling and add diversity to digital gaming, making the experience enjoyable and exciting. All three reasons point to the cognitive and entertainment value that historical characters add to playing experiences, thus reflecting the players' interest in connecting culture and history by engaging with meaningful historical stories through digital games. Furthermore, the participants reported other reasons for preferring historical characters in digital games, such as the fun of absorbing information from the game; learning more about culture, heritage, and society; and adding credibility to the game's story.

Table 2. Reasons for Preferring Historical Characters in Digital Games

No.	Phrase	Average	Standard Deviation	Percentage	Order
1	To get to know accurate historical figures and learn more about them	4.28	0.853	86%	1
2	Historical characters add depth and variety to the story and world in the game	4.08	0.91	82%	2
3	Because historical figures are more attractive and interesting	4.04	1.023	81%	3

Table 3 illustrates the aspects that attract participants to historical characters in digital games arranged according to percentages. Story and character development ranked first in terms of their appeal to players, reflecting the importance of narrative depth and character development in attracting interest and interacting with historical characters in digital games. Moreover, the participants mentioned several other different aspects, including character traits (such as charisma); cultural elements; the diversity of characters in historical periods (such as Islamic civilization or ancient times); the geographical diversity of the country to which the character belongs; the depth of the character and its influence on the world; the richness of the environment in which the character plays in terms of the abundance of tangible and intangible heritage elements (such as ancient buildings and cities, clothing, tools, music, and ancient words); the character's connection to the depth of Saudi and Arab history; in addition to technical features related to the historical character (the level of difficulty of the game, its multiple levels, the availability of updates, different versions of the game and its episodes, the variety of time options, fashions, tools, and customization features).

Table 3. Aspects of Attraction to Historical Characters

No.	Phrase	Average	Standard Deviation	Percentage	Order
1	Historical context	4.38	0.815	88%	2
2	Story	4.55	0.736	91%	1
3	Cultural and social diversity	4.3	0.835	86%	3
4	Unique abilities and skills	4.26	0.892	85%	4
5	Fame and accurate personality	3.98	1.061	80%	7
6	Ethics	4.04	1.07	81%	6
7	Victories achieved by the character	4.15	1.012	83%	5

Table 4 illustrates the main factors influencing the preferences for historical characters in games. The results indicate that advanced and dynamic character interactions in the game's virtual world and with other players are essential for determining the preferences for historical characters. Based on the information mentioned earlier, the element that adds the most value to playing experiences in digital games is character interaction with the world and players (93%), followed by character type (92%). Unique skills, abilities, and character design were equally important (86%). Furthermore, the participants added other factors that influenced their preferences for historical characters, including personal aspects (the timing of the story, the game's ability to present new stories and characters, the distinctiveness of the character's appearance, and the ability to compete and gain global popularity) and technical aspects (ease of downloading and playing, availability of continuous updates, multiple levels of play, the ability to collect points and prizes, the presence of individual and group play options, the presence of additional game accessories, the availability of explanations and reviews of the game, and the accuracy and quality of colors).

Table 4. Factors Influencing Preference for Historical Characters

No.	Phrase	Average	Standard Deviation	Percentage	Order
1	Character gender	4.61	0.63	92%	2
2	Attractive design	4.3	0.869	86%	3
3	Capacity	4.28	0.96	86%	5
4	Unique skills	4.32	0.917	86%	4
5	Balance	4.06	1.022	81%	8
6	Gaming abilities	4.24	0.93	85%	6
7	Availability of accurate historical information	4.13	0.982	83%	7
8	Character interaction with the world and players	4.66	0.585	93%	1

Importance of Designing Local Historical Characters for Digital Games

Table 5 demonstrates the factors influencing the participants' purchase of a game containing historical characters. The results demonstrate that creative stories, exceptional designs, and finer details of historical characters are the main factors driving purchase decisions. Historical time and credibility also played less important roles, although they were significant for some respondents.

Table 5. Factors Influencing Participants' Purchases of Games Containing Historical Characters

No.	Phrase	Average	Standard Deviation	Percentage	Order
1	Historical credibility	3.87	1.08	77%	5
2	Historical period	4.15	0.932	83%	4
3	Creativity in the story	4.63	0.738	93%	1
4	Attractive design	4.57	0.721	91%	2
5	Details of historical figures	4.37	0.935	87%	3

Figure 9 illustrates the participants' answers about whether historical characters enhanced their knowledge of history and culture. The results indicate that most participants believed that historical characters in digital games helped them acquire knowledge about history and culture. This study examines the correlation between participants' educational levels and their views on whether historical characters in digital games contribute to a better understanding of history and culture. Among the respondents, the majority holding a bachelor's degree (54 respondents) expressed an affirmative stance, while a smaller number of high school graduates (14 respondents) shared the same view. Respondents with diplomas and master's degrees exhibited diverse opinions, albeit generally leaning toward an affirmative stance. Notably, the statistical analysis revealed a chi-square test value of 7.912a with a significance level of 0.245. Given the significance level >0.05 , it is evident that no statistically significant association exists between participants' educational levels and their perspectives on the educational impact of historical characters in digital games. Hence, participants' views on this matter did not exhibit significant variance based on their educational attainment.

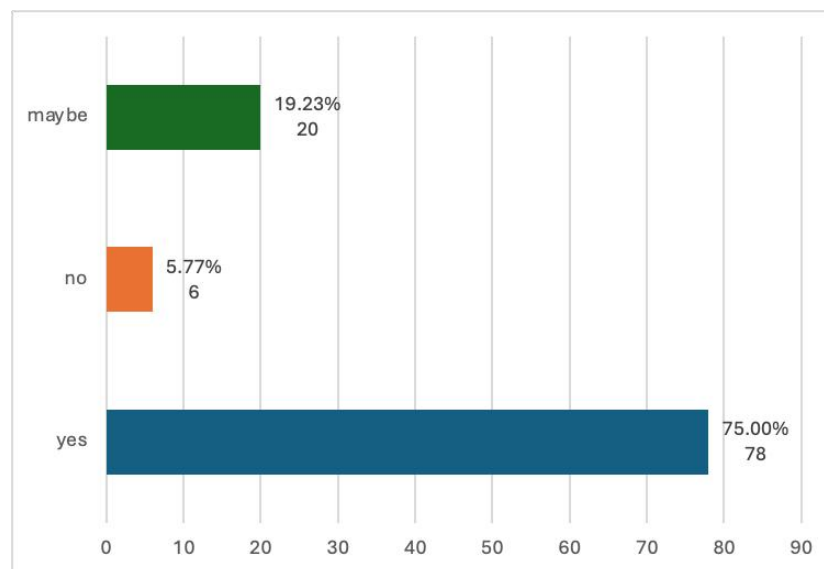


Figure 9. The Role of Historical Characters in Enhancing Knowledge of History and Culture

Figure 10 illustrates participants' preferences for local historical characters in digital games. Most participants agreed to have local historical characters in digital games. In a survey on preferences for local historical characters in digital games, 38 females and 66 males were asked for their opinions. Among the participants, 29 women and 47 men answered "yes," seven women and 13 male answered "maybe," while 2 female and 6 male answered "no." This indicates that most individuals, regardless of gender, prefer local historical characters in digital games. The Chi-Square test value was .566a, and the significance level was .754. Since the significance level was >0.05 , there was no statistically significant relationship between gender and the preference for local historical characters in digital games. In other words, the preference was not significantly dependent on gender in this sample.

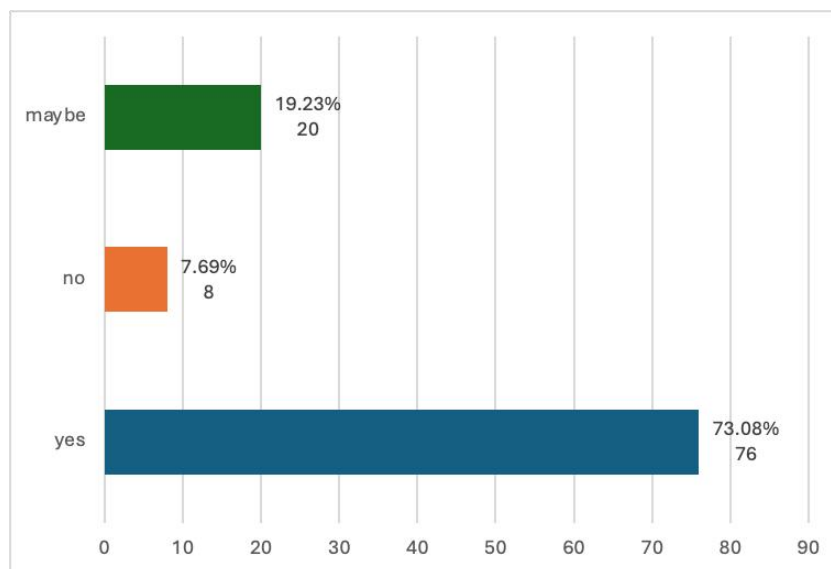


Figure 10. Preferences for Local Historical Characters in Digital Games

Preferences for Historical Characters in Digital Games

Table 6 illustrates the participants' preferences for the type of digital game. The data indicate that participants who liked action and fighting, games, and adventure were most curious about designing local characters for digital games. However, there appears to be less interest in developing local characters for role-playing and sports.

Table 6. Participants' Favorite Game Types

No.	Phrase	Average	Standard Deviation	Percentage	Order
1	Action and fighting	4.35	1.012	87%	1
2	Puzzles and mental challenges	4.13	1.089	83%	3
3	Role-playing games	3.74	1.351	75%	6
4	Strategy	4.1	1.093	82%	4
5	Sports	3.56	1.427	71%	7
6	Adventures	4.28	0.98	86%	2
7	Cars and racing	3.47	1.393	69%	8
8	Chess	3.1	1.438	62%	11
9	Educational games	3.26	1.461	65%	9
10	Science fiction	3.89	1.343	78%	5
11	Comedy	3.22	1.448	64%	10

Table 7 illustrates the participants' preferences regarding the role that their favorite character should play in digital games. The results revealed that characters with a sense of adventure and exploration were the most popular, followed by warriors/soldiers and leaders, who were equally popular. This indicates that gamers prefer strong characters that portray leadership qualities. Other characters evoked different but average levels of interest. These traits are highly relevant to historical figures, as many prominent historical characters are often portrayed as explorers, warriors, or influential leaders. This connection underscores the potential for historical figures to resonate with players when designed to embody these popular qualities.

This is important because it provides insight into how the attributes of historical characters can be aligned with gamers' expectations to enhance engagement and appeal. By understanding these preferences, game developers can create historical characters that not only remain authentic to their historical context but also meet the demands of modern gaming audiences.

In the context of this research, the findings directly inform the exploration of how historical characters can be effectively integrated into digital games to achieve both historical accuracy and player satisfaction, particularly within the cultural context of Saudi Arabia. This connection underscores the study's contribution to bridging the gap between historical storytelling and contemporary game design.

Table 7. Character Role

No.	Phrase	Average	Standard Deviation	Percentage	Order
1	Warrior/soldier	4.32	0.906	86%	2
2	Leader	4.31	0.904	86%	3
3	Citizen	3.86	1.194	77%	5
4	Adventurer	4.47	0.788	89%	1
5	Inventor	3.89	1.246	78%	4
6	Scientist	3.64	1.343	73%	7
7	Artist	3.57	1.406	71%	8
8	Athlete	3.72	1.404	74%	6

Figure 11 illustrates the participants' preferences regarding the gender of the main historical characters in digital games. The results indicate that male characters were significantly more popular than female characters. The correlation between participants' gender and their preferences for the gender of the main characters in digital games was also examined. The findings demonstrate a noteworthy difference in preferences between male and female participants. Specifically, 25 female participants preferred female main characters, whereas none of the male participants shared this preference.

Conversely, 66 male participants favored the male main character, whereas only 13 female participants expressed similar preferences. Statistical analysis yielded a chi-square test value of 57.162a with a significance level of .000, indicating a robust and statistically significant association between gender and the preferred gender of the main characters in digital games. In summary, this study revealed a notable gender-based disparity in character preferences, with female participants exhibiting a predilection for female characters and male participants displaying a preference for male characters.

These findings emphasize an important consideration: understanding gender-based character preferences can enhance the design of historical figures in interactive media. For instance, games targeting diverse audiences could benefit from featuring prominent female historical figures or allowing players to choose between male and female protagonists, increasing their overall appeal.

Additionally, female participants' preference for female characters highlights the need for greater representation of women's historical contributions in digital games. This focus could lead to more inclusive storytelling and character development within historical narratives.

Recognizing the differing preferences of male and female gamers can also inform marketing and development strategies for games featuring historical characters. Specifically, games that spotlight female historical figures may resonate more with female audiences.

Ultimately, these findings underscore a crucial point for game developers: gender preferences significantly influence player engagement with historical and fictional characters. By aligning character design with these preferences, developers can create more inclusive and engaging experiences centered around historical narratives.

Figure 12 illustrates the distribution of participants' age group preferences for their favorite historical characters in digital games and demonstrates that most gamers preferred historical characters between 18 and 30 years.

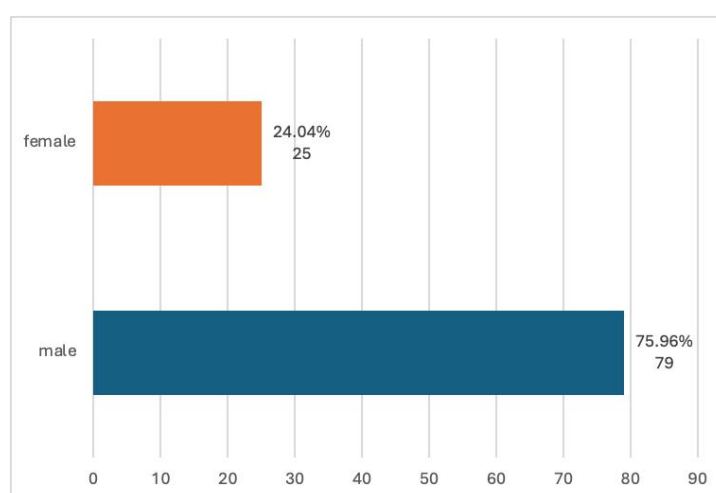


Figure 11. Participants' Preferences Regarding Characters' Gender

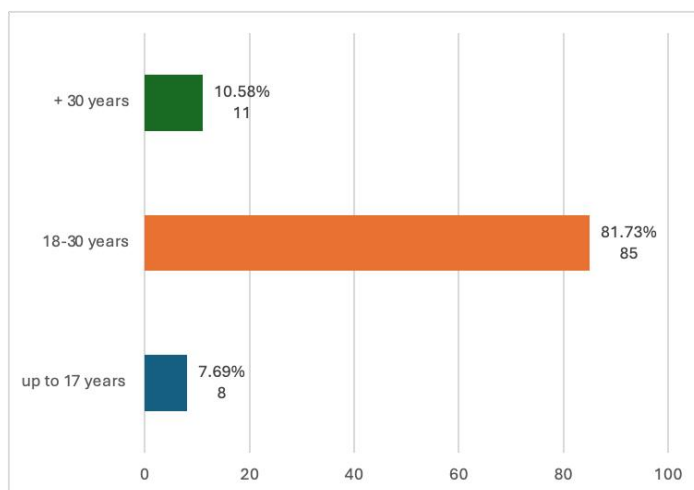


Figure 12. Preferred Age Group of Favorite Characters

Table 8 illustrates the participants' preferences regarding game story fields and demonstrates that most participants preferred the game focus to be on war, and games dealing with war stories and conflicts generated significant interest among players. Society and alliances were ranked second and third, respectively, indicating the players' desire to explore social relationships and alliances in the context of game stories. A substantial number of participants enjoyed games focused on politics and economics. Arts, football, and science were the least popular.

Table 9 illustrates the participants' interests in diverse historical periods, with game settings and ancient history being the most preferred.

Table 10 illustrates the players' preferences regarding playing styles. The narrative style ranked first in the games, illustrating the players' preferences for this style. This was followed by the open-world style, which also received high rankings. Other styles, such as realistic simulations and cartoons, ranked lower than the narrative and open-space styles. Finally, the closed-world and virtual reality styles were unpopular, as evidenced by their lowest ranks.

Table 8. Preferred Story Fields

No.	Phrase	Average	Standard Deviation	Percentage	Order
1	War	4.25	1.086	85%	1
2	Politics	3.66	1.363	73%	6
3	Alliances	3.89	1.198	78%	3
4	Society	4.13	1.103	83%	2
5	Economy	3.69	1.415	74%	5
6	Science	3.54	1.4	71%	8
7	Sacrifice	3.73	1.367	75%	4
8	Arts	3.62	1.389	72%	7
9	Football	3.12	1.547	62%	9

Table 9. Favorite Historical Period

No.	Phrase	Average	Standard Deviation	Percentage	Order
1	Ancient history	4.31	0.956	86%	1
2	Islamic history	4.01	1.066	80%	3
3	Medieval history	4.09	1.183	82%	2
4	Modern history	3.88	1.155	78%	4
5	Contemporary history	3.72	1.226	74%	5

Table 10. Favorite Style of Game

No.	Phrase	Average	Standard Deviation	Percentage	Order
1	Narrative style	4.55	0.787	91%	1
2	Open world	4.18	1.13	84%	2
3	Realistic simulation	4.06	1.189	81%	3
4	Cartoons	3.82	1.26	76%	4

No.	Phrase	Average	Standard Deviation	Percentage	Order
5	Closed world	3.65	1.252	73%	5
6	Virtual reality	3.65	1.364	73%	6

Table 11 illustrates players' suggestions regarding the characters' roles, wherein two options were presented. The first, "a fictional character in a historically documented setting," demonstrates players' desire to experiment with fictional characters; characters created but reliably integrated into a known and documented historical setting add an element of thrill and excitement to the gaming experience. The second, "a real historical character," indicates players' desire for historical characters to be included in the game (e.g., well-known and documented historical characters), which imbues unique historical and cultural appeal in the game, allowing participants to experience historical events and characters first-hand. It is clear from the table that the players prefer the former over the latter.

Table 11. Suggestions for the Role of Characters in the Games

No.	Phrase	Average	Standard Deviation	Percentage	Order
1	A fictional character in a historically documented setting	4.44	0.879	89%	1
2	A real historical character	3.83	1.144	77%	2

In the context of designing historical characters in digital games and their relationship to Saudi culture, the study participants suggested several ideas, including creating characters linked to Saudi history and identity, presenting characters from the context of old local Arab stories that represent Arab morals, designing a historical game that can change the stereotypes spread in foreign media regarding the Arabian Peninsula, designing and developing the game in the Kingdom, using it to introduce the civilization and characters linked to Saudi history to provide a new perspective with global appeal, and including the Arabic language with other languages in these games.

DISCUSSION

This research aimed to investigate Saudi gamers' preferences regarding historical characters in digital games and analyze how these preferences reflect significant cultural and social dynamics within SA.

In addressing the research question (RQ1), which inquires about the factors that generate interest in historical characters from the player's perspective, the findings revealed several critical factors contributing to this interest. Including historical characters emerged as a primary element that captivates and engages players. Additionally, features such as narrative depth, character development, and dynamic interactivity within the game environment were identified as major contributors. Collectively, these elements enhance the relatability and immersion of historical characters, thereby increasing players' emotional investment and overall enjoyment of the gaming experience.

The research underscored the necessity of integrating cultural and social dimensions into digital games, particularly within Saudi Arabia. Participants emphasized incorporating regional crafts, traditional practices, and local historical figures into game narratives. This approach is consistent with Saudi Vision 2030, which seeks to promote Saudi culture, facilitate global cultural exchange, and preserve authenticity. By integrating these cultural aspects, the gaming experience is enriched. It serves as a means of cultural preservation, enabling players to engage with their heritage in a modern and interactive manner.

The study highlighted the significance of cultural alignment in game design. Developers can create games that resonate profoundly with players by embedding culturally relevant content. This strategy has important implications for game developers and investors in Saudi Arabia's burgeoning digital gaming industry. Including historical and cultural elements in games plays a substantial role in shaping players' sense of identity and appreciation for their heritage, ultimately enhancing their reception of the games.

This research enhances understanding of the relationship between players and historical characters within games, particularly concerning historical and cultural contexts. The findings suggest that historical characters developed with careful attention to narrative complexity, cultural relevance, and engaging interaction are more likely to capture players' interest. Therefore, developers should consider these factors in character design to ensure relevance and appeal to the target audience.

As for (RQ2) regarding the significance of designing local historical characters for digital games from the

perspective of players, The findings of this study underscore the critical importance of developing local historical characters within digital games, particularly in the Saudi Arabian gaming market. Participants demonstrated a pronounced interest in characters embodying their cultural and historical identities, thereby highlighting the necessity for digital games to represent the Saudi Kingdom's heritage authentically. By integrating characters inspired by the Kingdom's rich cultural and historical context, digital games can function as sources of entertainment and as instruments for cultural preservation and education.

The results indicate that incorporating local historical characters offers an avenue to safeguard and disseminate Saudi cultural heritage. Participants recognized the potential for digital games to protect heritage sites and foster an understanding of Saudi history. They accentuated the importance of historical credibility, suggesting that character development should reflect Saudi values and traditions. This approach aligns with the overarching objectives of Saudi Vision 2030, which aims to promote and preserve the Kingdom's cultural identity.

Moreover, the study found that while educational games were not the favored genre among participants, there is a strong interest in exploring history through indirect and engaging experiences. This observation corroborates established literature on game-based learning, which posits that players acquire knowledge most effectively when educational content is delivered through immersive and interactive experiences. Thus, designing games that intertwine historical narratives with engaging gameplay ensures that players assimilate historical knowledge as a natural consequence of their engagement rather than through traditional instructional methods.

The findings accentuate the need for collaboration among video game developers, historians, and cultural institutions to create games that authentically convey Saudi history and culture. Such partnerships ensure that the games serve to entertain, educate, and preserve cultural narratives. Developers can create characters and narratives that resonate profoundly with players by involving experts in history and culture, thereby fostering a sense of cultural pride.

This study reflects a broader societal desire for culturally relevant content, emphasizing the demand for games that capture the essence of Saudi history. For the gaming industry in Saudi Arabia, this represents a significant opportunity to exploit a unique market niche. Games that include local historical characters can attract a diverse audience by merging entertainment with cultural education, thereby playing a pivotal role in strengthening cultural connections among players.

Addressing **(RQ3)** the players' preferences for portraying and designing historical characters in digital games, The study revealed that Saudi gamers prefer fictional characters set within historically documented contexts rather than exact representations of historical figures. This finding aligns with broader global gaming trends, wherein players value fictional characters' freedom of imagination and creativity while still recognizing the educational and immersive potential associated with historical settings. This balance highlights a core principle of gaming culture: Players seek an equilibrium between historical authenticity and creative engagement.

Saudi players exhibit a strong appreciation for narrative depth and character development, favoring characters embodying adventure, leadership, and a quest for exploration. This preference indicates a tendency toward dynamic and resilient characters that align with players' emotional and cognitive expectations. Such attributes often enhance player engagement by providing a heroic and relatable figure within the game storyline. Developers are encouraged to design characters that fit historical contexts and serve as emotional anchors for players by reflecting heroic cultural paradigms.

The preference for genres such as action, fighting, and strategy reflects players' inclination toward games emphasizing vital character roles and narratives. These genres facilitate the exploration of leadership and adventure themes, which align with Saudi players' cultural and personal aspirations. Developers should prioritize creating characters central to compelling, action-driven narratives while considering how to integrate these stories within culturally significant historical backdrops.

A notable finding is the participants' interest in game narratives set in ancient history, particularly those involving myths and ancient civilizations. This preference indicates a cultural connection to Saudi's historical roots, wherein ancient civilizations and myths hold substantial prominence in the national consciousness. The rich narrative potential inherent in pre-Islamic and early Islamic history presents a unique opportunity for developers to create games that amalgamate cultural significance with engaging gameplay. These settings could provide immersive experiences while preserving and promoting the historical heritage.

Ultimately, the preference for fictionalized portrayals within historical contexts signifies a promising pathway for games creatively engaging with Saudi heritage. By concentrating on ancient narratives and mythological themes, developers can establish a more profound cultural connection with players while offering content that appeals to a global audience. This dual approach ensures that historical games may function as a medium for cultural preservation and international cultural exchange.

This study represents the inaugural investigation into Saudi gamers' preferences for historical characters in digital games. It contributes to a largely underexplored domain within gaming and cultural research, concentrating on a culturally specific context. This research provides valuable insights into the interplay of history, culture, and gaming preferences among Saudi gamers.

However, as a pioneering effort, this study entails certain limitations. The research sample was confined to participants at the Digital Games Association and E-sports Academy events in Riyadh from November 2023 to January 2024, which may only partially reflect the broader gaming community in Saudi Arabia. Furthermore, the study was designed to explore rather than generalize, indicating that the findings are intended as a foundation for further research rather than as definitive conclusions.

These limitations present opportunities for future studies to broaden the sample size and geographic coverage, thereby facilitating a more comprehensive analysis of gamer preferences throughout Saudi Arabia. Additional research could also delve into further factors influencing the appeal of historical characters, such as cultural values, gender representation, story, tangible and intangible heritage aspects, and gameplay mechanics.

Despite these limitations, this study's practical implications are significant. It provides valuable insights for game developers aiming to design historically inspired characters that resonate with Saudi gamers, thus enhancing cultural representation within digital games. Academically, this research paves the way for a deeper understanding of regional and cultural variations in gaming preferences, contributing to the expanding global discourse on the role of history in digital gaming.

CONCLUSION

This study is among the first to investigate gamer preferences concerning the historical elements of digital games in Saudi Arabia. As one of the first studies on this subject, our findings provide a valuable platform for future research on the overlapping world of digital gaming and Saudi Arabia's history. Our results provide opportunities for game developers to develop divergent and historically inspired narratives and for the full involvement of all types of players considering the growing interest in electronic games and sports in the Kingdom.

The results of this study support the inclusion of historical characters in digital games in a manner that allows for dynamic interactions between players and the game's virtual world. Integration can drastically increase a game's attractiveness and players' general experience. Therefore, it is necessary to gain a deeper understanding of Saudi gamer preferences, particularly during historical periods, and their associated cultural and human attributes.

The depth, diversity, and richness of its events, characters, and cultural and spatial characteristics reflect the distinctive features of Saudi history. Deep study and consequent analysis offer enormous scope for developing game narratives that will propagate Saudi history globally and positively represent the Kingdom's historical and cultural heritage. However, local and international success in this area can only be achieved if the game content aligns with the players' enthusiasm and interests.

The findings of this study indicate that the survey extended its investigation beyond the preferences related to historical figures, exploring broader aspects of character design and game dynamics that influence player engagement. These insights can be leveraged to improve the success of games featuring historical figures by aligning their portrayal with broader player expectations and preferences.

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ETHICAL DECLARATION

Conflict of interest: No declaration required. **Financing:** No reporting required. **Peer review:** Double anonymous peer review.