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RESEARCH ARTICLE

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Unlocking the Everdoor: analyzing the serious game Spiritfarer

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Abstract

This qualitative research study aims to examine the potential of the commercially available serious game, Spiritfarer. The study focuses on the game's unique approach to serious themes and its ability to facilitate discussions about grief. A grounded theory approach was used to analyze lived experience descriptions from 54 participants. Findings indicate that Spiritfarer can impact gamers' outlook, knowledge, and behaviors, particularly related to grief, empathy, and loss management. The game achieves this through effective game design principles that generate emotional reactions and establish a connection between the narrative, characters, and players.

Keywords Spiritfarer · Serious games · Educational games · Grounded theory · Empathy games

Introduction

Serious games use a combination of educational strategies, game elements, and content to provide a "serious" yet playful experience for players. This medium is part of a diverse group of immersive learning environments and platforms, including simulations and virtual reality (Alvarez & Djaouti, 2011). Serious games have been applied in a wide range of

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areas, such as healthcare (Arnab, 2012), war and humanitarian crises (Peng et al., 2010), and environmental issues (Hildmann & Hirsch, 2008). Despite the considerable attention serious games have received, there is a lack of empirical research that examines their potential for societal-based education (De Freitas, 2018). This is partly because serious game research often focuses on games developed for specific contexts, rather than those commercially available (Jacobs, 2021).

Released in 2020, the indie video game Spiritfarer (Thunder Lotus Games, 2020) became a critical and commercial success, even though it tackled series topics such as grief and loss. Spiritfarer is a 2D management game that tasks players with guiding spirits to the afterlife. Played on major consoles and mobile devices, players, as Stella, traverse a hand-drawn world in a customizable ship, home to various anthropomorphic spirits representing different stages of acceptance of death. Balancing resource management, exploration, and relationship building, players assist spirits in resolving their unresolved issues through symbolically representative tasks. Culminating in emotional ceremonies that signify the spirits' readiness to transition to the afterlife, Spiritfarer's unique gameplay and narrative can take gamers on a profoundly personal journey. This experience, as critics and fans such as Favis (2020), Navarro (2021), and Wright (2022) have noted, has had positive effects on managing grief in their personal lives. By potentially enabling players to explore themes of grief, loss, and acceptance, *Spiritfarer* can cultivate empathy and spur emotional introspection. The game's compelling narrative and emotional authenticity underpin its potential therapeutic and educational benefits as a serious game.

Literature review

Serious games

While there is an ongoing discussion about the exact definition of serious games (Clapper, 2018), they are predominantly understood as games designed with a primary purpose of education, rather than entertainment (Michael & Chen, 2005). Importantly, serious games frequently address topics that are serious in nature, such as death, war, and climate change, reflecting their key objective of education. Zyda (2007) emphasizes that the design and development of serious games are guided by the serious purpose they aim to achieve, distinctly separating them from games originally designed for entertainment but subsequently adapted for educational or serious applications. Serious games integrate pedagogical activities to educate or instruct, thereby imparting knowledge or skill (Zyda, 2005). This intentional design, aiming to serve an educational purpose, distinguishes serious games from commercially available games, which might be used for serious purposes but were originally designed for entertainment. On the other hand, games like *Darfur is Dying* (Shen et al., 2009) were developed as serious games from their conception. In a seminal book on serious games, Abt (1987) highlights that education and entertainment need not be mutually exclusive, suggesting that serious games can, and should, be both instructive and engaging. To date, serious games have been applied across diverse settings, such as schools, universities, businesses, and health care organizations, and have been used to teach a wide variety of subjects (Connolly et al., 2012; Zairi et al., 2022; Zhonggen, 2019). To date, the majority of research on serious games have been conducted on bespoke game environments.

In one project, a team of educational game designers have developed a 3D virtual learning environment called *Mission HydroSci* (Laffey et al., 2019). In this game, middle school students engage in a narrative around investigating water resources and are required to use scientific argumentation to complete missions (Laffey et al., 2017). *Mission HydroSci* is not the only serious game that has explored the importance of water as a resource. Another project called *Citizen Science* provides gamers with the task of gathering data from a lake and connecting it to data generated from a realistic simulation (Gaydos & Squire, 2012).

In another example, a team of students at the University of Southern California developed a serious game called *Darfur is Dying* in 2006. The game is set in a refugee camp in Darfur, Sudan, and was designed to raise awareness about the humanitarian crisis in the region (Shen et al., 2009). Players of the game took on the role of a refugee in the camp, and were required to navigate a variety of challenges and obstacles in order to survive. The game also provided players with information about the conflict in Darfur and the experiences of real-life refugees. Through gameplay and educational content, *Darfur is Dying* aimed to foster empathy and understanding for the plight of refugees (Auchter, 2016).

Peacemaker is another example of a serious game that originated in a university lab (Cuhadar & Kampf, 2014). The game was designed to simulate the complex political and social issues surrounding the Israeli-Palestinian conflict in the Middle East, and to encourage players to think critically about the conflict and potential solutions. The game included a variety of scenarios and outcomes, and players can achieve different levels of success depending on their choices and actions. *Peacemaker* has been broadly researched for its capability to promote understanding, empathy, and critical thinking about the complex political and social issues involved in the Israeli-Palestinian conflict, and to encourage players to consider non-violent approaches to conflict resolution (Alhabash & Wise, 2012; Burak et al., 2005; Gonzalez & Czlonka, 2010).

While there has been much attention given to the design and use of serious games, this research area has been faced with a number of challenges (Dimitriadou et al., 2021; Raybourn & Bos, 2005; Tsekleves et al., 2016). Perhaps the greatest challenge is that university research labs tend to lack the skills and background needed to design 3D environments (Glaser et al., 2021) and or effective games that meet the needs of both game design and educational or behavioral science (Theodosiou & Karasavvidis, 2015). Designing games that are both engaging and effective requires a high level of expertise in both fields (Slootmaker et al., 2017) which can be challenging as these two fields have different priorities and methodologies (Atsusi Hirumi et al., 2010). There is also the challenge of scaling up serious games research beyond small-scale experiments or pilot studies. Serious games also require significant resources to develop and distribute, which can make it difficult to conduct large-scale studies or interventions (Mayo, 2009). Due to these challenges, and with the advent of easier to use commercial game design tools (e.g., Unity), there has been a renewed interest in exploring commercially-available games and the potential they pose as serious games.

Commercially available serious games

The use of commercially available serious games is starting to garner interest for its educational potential (Susi et al., 2007). These games, deliberately designed with a serious purpose in mind, serve to address critical real-world issues and provide a platform for users to engage with these subjects in a simulated, controlled environment. A common criticism regarding serious games is the perceived dichotomy between education and entertainment.

To counter this, several game scholars and practitioners argue that games initially created for entertainment can also serve serious purposes in certain contexts (Squire & Jenkins, 2003). For instance, *Civilization* and *SimCity*, while primarily designed as entertainment, have been utilized as tools to discuss and dissect complex topics related to governance, economics, and urban planning.

The rise of commercial independent games since the late 2000s has further blurred this line. These games, such as *Papers, Please* (exploring authoritarian censorship), *Diaries of a Spaceport Janitor* (addressing gender fluidity), and *Norco and Citizen Sleeper* (providing critiques of capitalist economic systems), have tackled serious topics under the guise of entertainment. *This War of Mine*, another indie game, portrays the brutal realities of surviving a city under siege, offering a profound commentary on war and its impacts. Despite not being designed as a serious game, its narrative was compelling enough to be included in Polish high school curricula (Shukla, 2022). Even AAA titles, designed primarily for entertainment, can become platforms for serious discourse. For instance, *Red Dead Redemption 2* has been utilized in a University of Tennessee course to engage students with historical issues such as racism, indigenous rights, and women's suffrage in the American West (Owen, 2021).

It's crucial to differentiate between serious games and entertainment games that are used for serious applications. These types of games differ primarily in their design intention and purpose (Michael & Chen, 2005). Entertainment games are primarily created for amusement and recreation, but may subsequently be repurposed for serious applications. This usage often results from the inherent qualities of the game, such as its mechanics or narrative, which can provide valuable analogies or models for understanding complex real-world phenomena (Gee, 2003). This is often called 'Serious Play', where a game not designed to be serious is used in a serious context (Zyda, 2005). On the other hand, serious games are designed from the very beginning with a specific serious purpose in mind. This could be for teaching a specific subject, training certain skills, or raising awareness about a particular issue (Connolly et al., 2012). These games are developed with an understanding of both gaming and the subject matter they are intended to address, ensuring they are effective in achieving their serious objectives (Zyda, 2005). The use of serious games is often intentional and systematic, with specific outcomes in mind, compared to the more organic adoption of entertainment games for serious purposes (Susi et al., 2007). While both types of games can offer valuable contributions to education, training, and other serious domains, the distinction between them is important for understanding their appropriate uses and potential effectiveness.

Having established the distinction between serious games designed with an educational or serious purpose from their inception, and commercial games that can be repurposed for serious applications, we turn our attention to an emerging category. This category includes commercial games, not initially designed as serious games, but due to their thematic depth and nuanced narrative, can serve as compelling tools for serious learning. *Spiritfarer* is a prime example of such a game. Its exploration of complex themes such as death, afterlife, and emotional management allows it to function as more than just entertainment, providing valuable opportunities for learning and introspection.

Spiritfarer research

While there is a growing interest in exploring games around promoting empathy and coping with loss, to date there is little that has examined the serious game *Spiritfarer*. To the

best of our knowledge there have only been three studies that have examined the game in a research context.

The first is a study investigates the potential of commercial video games as a medium to help players cope with the loss of a loved one, specifically by analyzing the player's bereavement process while playing the game *Spiritfarer* (Eum et al., 2021). Through qualitative in-depth interviews with 6 participants and a thematic analysis, the study found that the player's grieving experience closely resembled the Dual Process Model of Coping with Bereavement by Stroebe and Schut. The study also found that the player's bereavement experience and level of engagement varied depending on factors such as prior loss experience, gaming environment, and tendency to focus on self or the game. The game itself accommodated some of these differences through its complex and diverse characters and engaging game elements. The study concludes with insights for future works in game design for bereavement support.

The second is an published thesis which explores the representation of death in independent video games, specifically in three titles: *That Dragon, Cancer, Spiritfarer, and A Mortician's Tale* (Boyd, 2021). These games break traditional norms of death in video games and provide a unique perspective on death that focuses on personal and societal aspects of mortality. Through analyzing the developer's design intentions and audience reception, the thesis demonstrates how independent games have become an ideal space for managing death fear and anxiety by providing a moment for players to rest, reflect, and contemplate, which the author calls meaningful death reflection. This growing trend in media presents death in new contexts and fulfills audiences' desire to engage with content that allows them to think about mortality in new ways.

The third and last is, the work of Austin and Cooper (2022), who examine *Spiritfarer* and the indie game *Mutazione* from the perspective of their ability to offer a safe space for players to engage with trauma and grief. Calling them "casual art games" (p.129), they note that these games offer "uniquely rich engagements with trauma, allowing players to practice letting go or empathizing with the traumatic experiences of others," (p.141) in part because these games are not competitive and have no failure and loss state, allowing players the agency to engage with grief mostly on their own terms.

Research objective

Upon reviewing the literature (see Table 1), it becomes apparent that the study of serious games is a rapidly growing field with vast potential, particularly concerning the utilization of commercially available games. Previous studies of *Spiritfarer* have largely focused on its narrative and mechanical elements, appreciating its approach to themes of death and mortality. However, there is a gap in the literature concerning the game's potential educational benefits. Therefore, the purpose of this qualitative research study is to examine and articulate the lived experiences of players engaging with the serious video game *Spiritfarer*, with an emphasis on understanding how the game's design elements foster profound, transformative interactions about grief and loss. This study aims to shed light on the multidimensional aspects of *Spiritfarer's* gameplay experience, identify the key design elements that facilitate such experiences, and extrapolate potential educational and therapeutic outcomes. In doing so, this investigation will expand the current understanding of serious games, address existing gaps in the field, and provide valuable implications for the future design and use of serious games. Ultimately, this research seeks to enhance the discourse on the

Table 1 Summary table of relevant literature included in our review

Theme	References	Key findings	Relevance to current study
Serious Games Challenges	Dimitriadou et al. (2021), Raybourn and Bos (2005), Tsekleves et al. (2016), Glaser et al. (2021), Theodosiou and Karasavvidis (2015), Slootmaker et al. (2017), Atsusi Hirumi et al. (2010), and Mayo (2009)	Identified challenges in designing, scaling, and distributing serious games	Highlights the need for exploring alternative resources, like commercially available games
Commercial Games as Serious Games	Susi et al. (2007), Squire and Jenkins (2003), Zyda (2005), Michael and Chen (2005), Gee (2003), and Connolly et al. (2012)	Explored the potential of commercial games for serious purposes. Made a distinction between entertainment games repurposed for serious applications and serious games designed with a serious purpose from inception	Lays the foundation for the current study. Justifies the need to explore commercially available games (such as *Spiritfarer*) as serious games
Serious Games and Spiritfarer	Eum et al. (2021), Boyd (2021), and Austin and Cooper (2022)	Analyzed *Spiritfarer's* potential in coping with grief and death, its representation of death, and engagement with trauma and grief	Highlights a research gap in the potential therapeutic benefits, personal growth, and emotional processing
Gap and Current Study Objectives	Current study	Aims to fill the research gap by exploring players' experiences with *Spiritfarer*, building upon the existing research, and shedding light on how the game can serve as a serious game	Outlines the direction and purpose of the current study

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potential of video games as therapeutic and educational tools, underscoring the importance of future exploration in this direction.

Methods

This qualitative study employed open-ended survey questions to extract Lived Experience Descriptions (LEDs) from Spiritfarer players. Utilizing a grounded theory approach, we aimed to uncover and articulate emergent theory around the 'essence' of playing Spiritfarer, exploring its potential to facilitate transformative experiences and shifts in players' perceptions about grief and loss. This research was approved by our respective institutions' Institutional Review Boards.

Grounded theory & the context of research question

Grounded theory is an approach to qualitative research that aims to develop a theory based on the analysis of data that has been collected in the field (Strauss & Corbin, 1990). In grounded theory, researchers deploy inductive reasoning methods to build a theory based on the data rather than starting with a preconceived theory or hypothesis. In our study we used a grounded theory approach and grounded theory is somewhat unique in its approach to research questions. Unlike many other research methodologies, grounded theory often starts with a broad area of study rather than a specific research question (Glaser, 1996). The aim of this approach is to allow the theory to emerge from the data rather than being constrained by a predefined hypothesis or research question (Glaser & Strauss, 2017). In our case, the broad area of study is the multidimensional aspects of *Spiritfarer's* gameplay experience, design elements, and how these design decisions extrapolate to provide potential educational outcomes.

Participants

Participants were recruited using purposive and snowball sampling strategies over a two-month period from July to August 2022. The study utilized purposive sampling (Palinkas et al., 2015) to reach out to potential participants who are known users of *Spiritfarer* and are part of its social media communities. Our invitation and consent documents were shared on popular *Spiritfarer* social media outlets such as Facebook Groups and subreddits (/r/Spiritfarer). To facilitate snowball sampling (Naderifar et al., 2017) we encouraged participants to share the study information with others within their network who also play *Spiritfarer*. This method helped us reach a wider range of *Spiritfarer* players beyond our direct contacts. This sampling strategy, combining purposive and snowball techniques, allowed us to recruit a diverse group of participants and gather rich data for our study.

A total of 56 people (n=56) responded to our call and completed the LED survey. The age of the participants ranged from 15 to 66 years old (M=29.7; SD=10.0). Out of the 56 participants, 33 identified as female, 15 identified as male, and 8 identified as gender-neutral or non-binary. No personally identifiable information was collected from the participants.

Data source and collection

Lived Experience Descriptions involve collecting data from participants through open-ended survey questions (Valentine & Jensen, 2021). Previous research on the lived experiences of gamers has primarily centered around the content of the games they play, but this study sought to delve deeper into the personal significance and motivations of gamers playing *Spiritfarer*.

Questions in the LED included items that sought to examine players' overall experiences playing *Spiritfarer*, understanding player perceptions of the game's assets, understanding personal connections to the game's themes around grief and loss, and examining what players learned while playing the game. Our full LED is provided in the Appendices (see Appendix A).

Positionality statement

As a research group composed solely of white researchers, we recognize that our racial and cultural backgrounds could shape our approach to this study. However, our team consists of individuals with diverse perspectives and experiences, encompassing aspects such as neurodiversity, socio-economic standing, sexual orientation, and gender identity. We have made efforts to address potential biases and ensure our study's diversity. To help ensure that the study accurately represents the experiences and viewpoints of a diverse population, we diligently worked to recruit participants from various racial, cultural, and socioeconomic backgrounds. We approached the data with open-mindedness, conducted thorough analyses to identify themes and patterns, and consistently compared and contrasted emerging concepts to refine our theory.

Analysis

We employed an inductive coding technique to examine our qualitative data, which aims to identify patterns and themes that emerge from the data itself, rather than imposing pre-existing categories or frameworks (Saldana, 2021). To analyze the lived experience description data, we utilized the constant comparative process (Charmaz, 2006), moving from open coding through axial coding and theme development.

Familiarity with dataset

In our study, we utilized a process of developing familiarity with the dataset in qualitative research. To begin, we extracted the LED responses from our Google Form and put all of the responses into a separate Google Doc for each individual prompt. Each member of the research team then read through the responses several times to become familiar with the data. At this time, we met as a team and began to discuss some of the themes that we observed in our multiple read-throughs. This step was preliminary and did not result in the development of any formalized codes or a code book. Next, we re-read the data and used the comment feature from Google Docs to begin creating an initial framework for a codebook that could be used for our full analysis. At this stage, each response from the LED was reviewed by two members of the research team. Upon the completion of this step we felt that we had a deeper understanding of the themes and patterns that were starting to emerge from the data.

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Open coding and preliminary code development

Our codebook underwent iterative development, with the research team split into two groups. They aimed to create a shared set of codes for the dataset, using two randomly selected LED responses as a starting point. Themes were identified, and codes were defined in a Google Sheet. After creating an initial codebook, the teams met, discussed their results, and reorganized the codes into major and related subthemes. Weekly meetings over a month refined the codebook, leading to the development of three new, broader themes. To test reliability, two coders applied the codes to 50% of the dataset, and the results were examined in the following section.

Agreement and code refinement

To provide an additional level of rigor to our qualitative study, we conducted an inter-observer agreement (IOA). An IOA refers to the degree of agreement between two or more observers or coders in evaluating or categorizing a given set of data and it is often used in qualitative research to assess the reliability of coding data. Coders were trained until at least 80% simple agreement was achieved (Gast & Ledford, 2010). For IOA, 50% of all LEDs were coded by two coders, and Kappa coefficients were calculated, averaging 0.814. Given that 0.6–0.8 is a reliable Kappa metric for IOA (Kraemer et al., 2012), our agreement rate was determined to be acceptable.

Axial coding

With 50% of our data being analyzed and found to be in high agreement, we moved onto the last phase of our analysis process. A template was created in Google Sheets where we each individually worked to code our full dataset. This Sheet included a finalized Codebook (see Appendix B) and a template with the subthemes included as a dropdown in a column that bound each of the major themes. This process of coding and sampling continued until we reached a perceived theoretical saturation with no new insights or concepts emerging from the data.

Development of theory & proposition

Throughout an iterative process of collecting, analyzing, and comparing the data, we developed a theory that explained the phenomenon or behavior under study. We ensured that the theory was grounded in the data and had a high level of explanatory power. As part of this process, we mapped out and visualized our codes to help generate the theory. This process was completed in a shared Google Drawing. Two members of the research team met and discussed the relationships of the variables. From the theory, we formulated testable propositions to predict a relationship or pattern between different variables.

Findings

We present our theoretical contribution as a conjecture map (see Fig. 1). A conjecture map is a graphical representation or diagram that illustrates the relationships among different hypotheses or conjectures. It is a tool used in research and critical thinking to visually
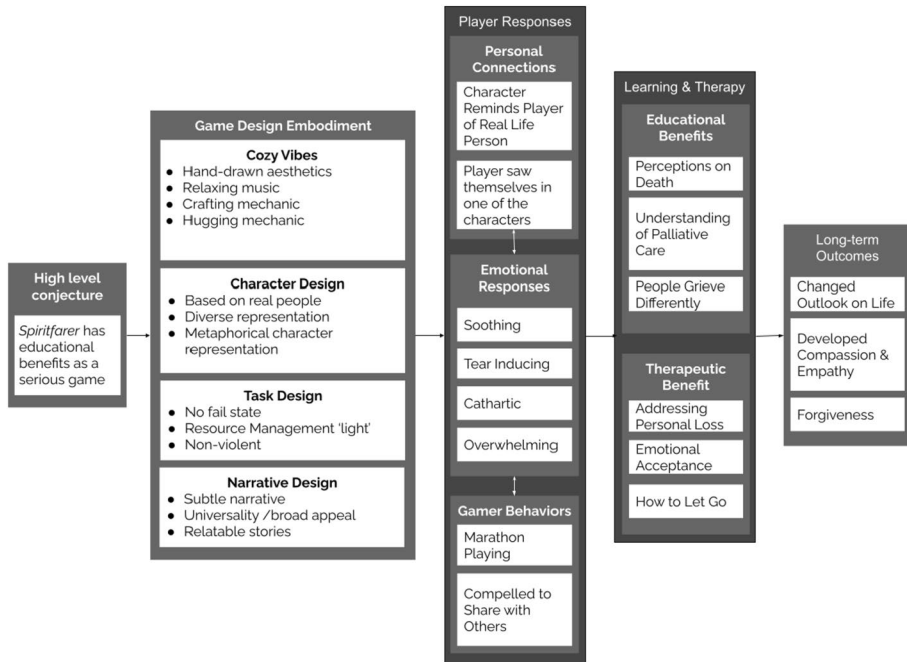
Fig. 1 Conjecture map of proposed theory

organize ideas and identify potential connections and gaps in understanding. The map typically consists of nodes or boxes that represent individual hypotheses or conjectures, with lines or arrows indicating the relationships or dependencies among them (Sandoval, 2014).

It is important to clarify the use of directional arrows in Fig. 1. These arrows are intended to represent the theoretical progression and interrelations between different themes and concepts identified in our study, rather than strict causal links. In the context of our conjecture map, the arrows suggest a conceptual flow or influence, indicating how one theme may feed into or inform another within the theoretical framework we developed. This representation is based on our interpretation of the data and the thematic analysis conducted, where certain themes seemed to naturally lead to or support the understanding of others.

During the development of the theoretical model, the different themes identified (Appendix B) were iteratively discussed and remapped based on the data. The themes that had emerged were mapped to create an integrated framework, visually representing the emergent theory. In this process, certain themes were consolidated, subthemes were repositioned under different primary themes, and new relationships between themes were identified. This method of iterative mapping allowed us to progressively refine our understanding of the data and evolve our initial interpretations into a comprehensive theoretical framework. It was crucial in visualizing the complex relationships and dynamics between the various aspects of player experiences within *Spiritfarer*. The resulting conjecture map (Fig. 1), provides a holistic view of the players' experiences and insights, highlighting key interactions, emotional responses, learning outcomes, and the long-term impacts of playing *Spiritfarer*. The map illustrates not only the individual components of the player experience but also how these components are interconnected. This iterative, visual approach to

theory development provides a grounded and context-specific theoretical model that articulates the complexity of the players' experiences and the potential implications..

Our findings indicate that the serious game *Spiritfarer* has the potential to impact the outlook, knowledge, and behaviors of gamers; especially in relation to grief, empathy, and managing loss. This transformation is achieved by incorporating fundamental game design principles that generate powerful emotional reactions from players and establish a deep connection between the game's narrative, characters, and its players. It is the interaction of each of these elements which makes *Spiritfarer* and effective educational game.

The emergent theory is that *Spiritfarer*, as a serious game, elicits strong personal connections and emotional responses from players. Through its game design embodiment, including cozy vibes, hand-drawn aesthetics, relaxing music, crafting mechanics, and the unique hugging mechanic, *Spiritfarer* creates an emotionally impactful experience. These elements contribute to players' educational benefits, including perceptions on death, understanding palliative care, and recognizing the diverse ways people grieve. The narrative design of *Spiritfarer*, with its relatable stories and themes of forgiveness and addressing personal loss, fosters therapeutic benefits and encourages emotional acceptance and personal growth. Furthermore, the game's outcomes involve changed outlooks on life, the development of compassion and empathy, and a transformative impact on players' attitudes and behaviors. Our theory highlights the transformative potential of *Spiritfarer* as a serious game, providing players with educational and therapeutic experiences. In the following sections we will visit each of these elements linearly in order to draw out their importance in more detail.

Game design embodiment

Throughout the LED responses a number of game design traits were consistently brought up by participants as having a positive influence on their affect and gaming experience. These game design traits are (a) the *cozy* vibes of the gaming experience, (b) the attributes of character designs including their diversity and representation, (c) the developer's decision to have tasks without fail states and removal of traditional gameplay decisions, and (d) the subtle but universal narrative design.

The coziness of spiritfarer

Despite the game's content matter, participants largely described Spiritfarer as soothing or comforting. One participant stated, "It was a soothing and heartbreaking experience. The management of the ship was relaxing and I enjoyed getting to know each of the spirits. I would often tear up when sending them through the Everdoor." Another participant commented on the perceived irony of finding a game about death to be relaxing, saying, "Gut reaction is that it was an enjoyable and relaxing game to play, subject matter aside. I can play for hours and completely lose track of time." One participant even found the game to be "some comfort, as [they] played it during the height of the pandemic." Others described the game as feeling "very relaxed," "cozy," and "relaxing." A particularly powerful quote from a participant highlighted a memorable moment when they sat in a chair on top of the ship, observing the constellations in the sky and allowing their mind to drift. When asked about their favorite gameplay components this participant said, "one standing out to me is not really a gameplay element but a vibe check moment. It was when I sat in a chair on top

of the ship and then I could see all the constellations in the sky and just be there to let my mind drift."

One of the most-discussed aspects of the Spiritfarer experience among participants was its aesthetics, which included a combination of colorful hand-drawn graphics, animaline designs, and cartoonish animation, similar to the *ligne clare* comic aesthetic of clean and heavy lines (e.g., Tintin; see Fig. 2). One participant called the art style "absolutely gorgeous," while another dubbed it "a work of art." Some participants celebrated the synergy of story, animation, and music, with one describing it as an experience they would never forget. They said, "Playing through *Spiritfarer* is an experience I will never forget. Between the story, the animation style, the music and gameplay, these elements kept drawing me back into the world. The laid back nature of the game is incredibly relaxing. To be able to play at your own pace was a huge draw for me. I know there is one timed event, but that one event was easy to complete." A participant who did not usually play video games found the game "surprisingly beautiful" and loved the art style, which hooked them despite their initial skepticism.

Alongside the hand-drawn art, the music was cited by many participants as an important aspect of *Spiritfarer's* overall aesthetic. The most positive reactions came from those who felt the music effectively conveyed emotion. One participant noted that the music was a significant part of their connection to the game and its characters, particularly when characters moved through the Everdoor. Another participant was surprised at "how well a game can encapsulate emotion using story and music."

Participants frequently mentioned finding the crafting and resource management components of Spiritfarer relaxing. One response said, "…a lot of scenes were very emotional, and the everyday gaming (the farming, crafting, fishing, etc.) was relaxing." Another participant succinctly described the fishing resource management mini-game (see Fig. 3) as "soothing." The care of animals also garnered positive feedback as a crafting mechanic, with one participant saying, "Animal care is a really nice touch. Feeding your travelers and animals is part of the duty that makes the player feel needed but doesn't overwhelm."

Fig. 2 A screenshot from the game Spiritfarer (Used with permission from Thunder Lotus Games)

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Fig. 3 A screenshot of the fishing mini-game (Used with permission from Thunder Lotus Games)

In *Spiritfarer*, hugging is a way to increase your relationship with the various spirits that you encounter throughout the game. Hugging is not just a simple gesture in *Spiritfarer*—it has a number of effects on the game such as boosting your relationship with them and unlocking new abilities and resources. Not all spirits are receptive to hugs at all times, and hugging the same spirit repeatedly may result in diminishing returns.

Responses did not focus on the mechanic's specific purpose, but rather on the comfort and emotional connection it provided. One participant, for instance, expressed their fondness for the hugging mechanic, saying, "I love the hugging mechanic of the game, I hug the characters whenever I get the chance, especially Atul, as his hugs are the most comforting." Another participant highlighted the emotional significance of the mechanic, stating, "The last hug on the rowboat before spirits pass through the gate is hands down the most emotional part of the game." Some participants also discussed the hugging mechanic from a broader game design perspective. One participant claimed, "The hug mechanic is one of the best game developments in the past 15 years," while another appreciated how it addressed a desire unmet in similar games, saying, "Being able to see how my spirits were doing and giving them hugs was everything I wanted from similar games that I didn't get."

Character design

While the spirits in *Spiritfarer* are not direct representations of specific real-life individuals, their personalities, emotions, and stories are inspired by the human experience and people from the lives of the developers. As a result, the spirits in the game have human-like qualities and face challenges that many people can relate to. This was evident in findings from our analysis. For example, participants often expressed how they found the characters in the game to be human-like and broadly relatable. Quotes from participants include, "As I got further into the game, I realized that the story was the most important part. I became attached to each spirit and found myself relating people in my life to each spirit, even if it was only a fraction of that spirit—for example, I saw my grandma in Summer, Alice, and

Beverly." and "I really enjoyed how it was open world and that it wasn't truly a platformer. You could take your time getting to know the characters and piece together their stories. I felt like I was getting to know real people even though I wasn't in the real world. It felt like a dream."

Task design

In *Spiritfarer*, resource management is a crucial component of the gameplay that enhances the story and character-driven elements. Players, as the Spiritfarer, are responsible for guiding spirits to the afterlife, which requires managing various resources on their ship. Unlike many games in this genre, *Spiritfarer* adopted an approach that downplayed the necessity of grinding for materials. Consequently, participants stated that the mechanic transformed from a tedious task into an enjoyable and comforting activity. For example, one participant expressed, "I loved playing spiritfarer. I played on the Switch and started during the UK lockdown. I have over 100 h in the game and would play it again (a rarity for me as I don't like replaying games or rereading books). It was the perfect mix for me of collecting, resource management, adventure and problem solving. I cannot recommend this game enough." Another participant commented, "I really enjoyed Spiritfarer, it served as a relaxing resource/quest based game with constant progression. I've never been a "read every dialog" person but this game really made me think about my own life and the people I care for."

An additional finding was that players appreciated the absence of failure in the game. There was no fail state or possibility of losing, and even mistakes were rewarded through crafting. Players' perceptions of this aspect were evident in quotes such as, "I love simple games that make it so you can't lose. I love collecting things. Games are so powerful and deep. You can play a game and learn about yourself and it can be a kind of therapy." Players responded positively to the array of tasks that kept them engaged without overwhelming them or leading to a failure state: "[T]here's always something shiny to be looking to add to your collection. Animal care is a really nice touch. Feeding your travelers and animals is part of the duty that makes the player feel needed but doesn't overwhelm."

Narrative design

Results also indicate that participants had a lot to say about the game's narrative design. Related to the task design, one participant said, "the narrative was very touching and the gameplay was so simple that I never felt forced to do any one thing in particular, I could tackle the requests of the game in a number of different ways and just focus on the things I liked most." Participants also said that they found the story to be immersive or being a driving factor in getting them hooked onto the game. One player said, "Very relaxing, but the more I played the more I got sucked in the story," "I loved the animation style, the music, and the story. Some of the characters especially drew me in," and " found the story to be incredibly engaging, which doesn't happen to me often." Players also provided other positive comments towards the narration. For example, one participant said, "I loved it. I found it engaging as a game while having a really beautiful story." Another commented on the uniqueness of the story, "I loved the story, I thought it was really unique and like no game I had played before."

Player responses

In our study, we found three key aspects related to how players responded to their experiences playing *Spiritfarer*. These aspects are: (1) Feeling a personal connection, (2) Having strong emotional responses, and (3) Engaging in long game sessions and a desire to share with others. In the following sections we will outline findings from each of these aspects.

Personal connection

Our research identified two main factors that contributed to the emotional bond players formed with the characters in *Spiritfarer*. Firstly, we discovered that some participants felt the spirits in the game reminded them of their loved ones, which strengthened their emotional attachment to the game. Secondly, our findings highlighted that players experienced a profound connection with the game's characters, making their storylines and the process of assisting them more engaging.

Concerning the resemblance to real-life individuals, one participant shared, "My grandma, who I am extremely close to, was diagnosed with stage 4 bone cancer in August 2021. She passed a few weeks ago, on July 8th, 2022. I began my 4th playthrough of Spiritfarer the day after and just finished it yesterday. This time, nearly every spirit said something to me on the way to the Everdoor that reminded me of my grandma or a way that I felt while I was watching her die in hospice." Another participant noted seeing their resemblance to their grandmother in the characters, and this relatedness to their own life drew them away from the more traditional video game elements:

> Initially, I really enjoyed the management aspect of the ship building as well as the mini games for the different stations/resource collecting. As I got further into the game, I realized that the story was the most important part. I became attached to each spirit and found myself relating people in my life to each spirit, even if it was only a fraction of that spirit - for example, I saw my grandma in Summer, Alice, and Beverly.

For them, this emotional resonance to their own life became the reason to play the game. One participant mentioned that escorting a spirit to the Everdoor was a particularly emotional part of the game, as it "was quite emotional at times, especially the hedgehog with dementia, this was most compelling to me as my grandmother is currently experiencing similar."

Participants also discussed identifying themselves in the characters in addition to others. Writes one participant:

> As the game went on and I slowly got into the headspace, I was able to generate more emotional investment in the characters. It was not until I met Alice and sent her to the Everdoor when I realized that I could tie myself so close to a character and be so deeply moved by what's happening in the game.

Another participant echoed this sentiment, stating, "Summer's description of 'the dragon' following them and the other portions that dealt with sickness, addiction, and more were very relatable. I myself have dealt with all of the above and have lost people to that as well."

Emotional response

In our study, we found that players typically had strong emotional responses while playing *Spiritfarer*. Although the game was often described as cozy and relaxing, participants also reported being emotionally overwhelmed and shedding tears. Many participants described the game as cathartic or heartbreaking. One survey response mentioned, "Getting to know everyone's story and saying goodbye was cathartic, especially for characters similar to people who had passed in my own life." Another participant shared a similar sentiment, calling the game "heart-wrenching and cathartic." These cathartic feelings were frequently accompanied by tears, with one player stating, "I laughed with the spirits, I cried when I had to let them go, but it was a good cathartic cry." Other examples included feeling emotional to the point of "ugly sobbing":

> Despite knowing what the gist of the game was before playing, I was also a bit shocked by how emotional it made me at several points (like...ugly sobbing in my basement emotional). I was surprised I ended up so attached to the characters and even more so when some of them would say things that really hit home for me. It was simultaneously heartbreaking/emotionally draining and cathartic.

Another participant experienced "painful, bittersweet patterned with laughter and tears." While most participants experienced catharsis from the game, some found the emotional responses too strong, causing them to stop playing. One participant refused to finish the game because a favorite character's departure affected them so much:

> I really loved playing. It was definitely a very different gameplay from what I had envisioned. The story was very touching. I had to take breaks from the game every time I said goodbye to one of the characters because it made me quite emotional. I have actually not finished the game yet because after helping the Uncle/Atul pass I felt extremely sad. .

Another stopped playing because a close friend disclosed suicidal intentions, making the game's similar themes too emotionally distressing for them to explore.

Game behaviors

Despite these strong emotional responses, the majority of participants indicated to us that not only did they enjoy playing the game, but they usually engaged in marathon game sessions or would play the game repeatedly over a longer duration of time. This is evident from responses such as this one, "I played through the entire game within a two week period while playing almost nothing else and consuming no other media." Another participant conveyed to us that they, "loved playing spiritfarer. I played on the Switch and started during the UK lockdown. I have over 100 h in the game and would play it again (a rarity for me as I don't like replaying games or rereading books)." Participant's seemingly felt so engrossed with the game that they often wanted to share it with others; including with their children, "It was so enjoyable that I brought in my young daughter to play along with me." Another participant told us that they "stumbled" upon the demo on video game storefront Steam and that since playing it, they were "absolutely hooked and played it everyday" and that they "recommended it to everyone since."

Learning and therapy

The study's findings revealed that participants experienced several educational benefits while playing *Spiritfarer*. These benefits can be categorized into three main themes: (1) Perceptions on death, (2) Understanding palliative care, and (3) People grieve differently. Findings also indicated that participants found a degree of therapeutic benefit to the game with themes around: (1) Addressing personal loss, (2) Emotional acceptance, and (3) How to let go.

Educational benefits

Participants reported that *Spiritfarer* facilitated introspection and reflection on their beliefs and experiences related to death and loss. One participant noted, "Death is a reality, and we need to come to terms with it sometime. I'm familiar with the Death Positive movement, and I feel others could appreciate it and use it as a segue into further self-exploration." Many also gained a deeper understanding of death's inevitability and the importance of accepting it. Responses included, "Death is unavoidable, and sometimes you don't get to say goodbye," and "It's given me a helpful framework for thinking about death."

Our study's results also showed that participants gained insights into the importance of providing comfort and care to individuals nearing the end of their lives. The game's emphasis on emotional and physical well-being helped players appreciate the significance of palliative care in alleviating suffering and promoting dignity. Participants shared insights such as, "I am certain I have gained some insights about taking care of people during their last days and comforting them on their way out."

Moreover, participants recognized that the game exposed them to different grieving processes, increasing their empathy and understanding of the varied ways individuals cope with loss. One respondent commented, "I grew up Christian, so exploring other ways of thinking about the afterlife is really helpful. Also, how people approach death and grief so differently." By depicting a range of characters and their respective approaches to grieving, the game fostered a sense of compassion and respect for the individuality of the grieving experience, with participants acknowledging that "acceptance of death looks different for every person, and a good life is different for everyone."

Therapeutic benefit

Numerous participants reported that playing *Spiritfarer* allowed them to confront the loss of a loved one or pet and find closure. The game's narrative and mechanics offered a secure environment for players to process their emotions and seek resolution. This theme was especially evident among participants coping with the recent loss of a pet, with one stating, "After my cat passed… game to help me distract myself." Another participant described the game as both challenging and healing after losing a pet unexpectedly. The therapeutic benefit extended to those experiencing the loss of friends or family members. For example, one player recalled how, "nearly every spirit said something to me on the way to the Everdoor that reminded me of my grandma or a way that I felt while I was watching her die in hospice." *Spiritfarer* encouraged participants to accept and express their emotions, illustrating that it's normal to feel various emotions during the grieving process. Players found solace in the shared experiences of virtual characters, feeling "accepted and seen"

in their own grief and struggles. Others were drawn to the game because of its focus on grief and overcoming it.The game's emphasis on characters' journeys and saying goodbye allowed participants to reflect on the importance of letting go, offering valuable insights on navigating personal loss and finding closure. One player found that witnessing spirits "pass willingly and say goodbye (with the exception of one) helped give some closure" in their real lives. Another commented on how the game's message of acceptance resonated with them and helped them in their personal life during challenging times.

Long-term benefits

Many participants reported developing a deeper appreciation for the value of relationships, the preciousness of time, and the importance of cherishing moments with loved ones. The game's exploration of mortality prompted players to reevaluate their priorities and concentrate on what truly matters to them. This is evident in comments like, "Choosing to celebrate the life [of loved ones] while you're with them and grieve when they're gone." Another participant echoed this sentiment, stated, "That it's ok to cry, and be scared, and not know what you're doing or where you're going, but that you still have to take life as you come, make your life what you want it to be, rather than just wait, and be the light for others, as long as they can be the light for you." These shifts in life perspectives also inspired some participants to take action in their daily lives, with one person sharing,

> When I first played through Spiritfarer, I did a lot of introspection. I reflected a lot on what death means, what I would regret if I were dying or if someone else died who was close to me, and what I would leave behind. For Christmas of that year, I handwrote letters to everyone I loved, reminiscing and letting them know how much they mean to me and saying anything I had been meaning to say. I started telling people I loved that I love them. On this last playthrough, I had been feeling a lot of sadness, regret, and guilt from my grandma passing. I had felt that I wasn't here early enough to truly say goodbye to her before she passed, and I had felt that there was still so much to say to her and ask her about. I'm so happy I played through it again. I sobbed a lot, but I could hear my grandma in so many things that the spirits said on their way to the Everdoor. I believe it's helped me grieve.

The findings also demonstrated that *Spiritfarer* promoted the development of compassion and empathy. By presenting diverse characters with unique stories and emotional needs, the game enabled players to better understand and empathize with the experiences of others. For instance, one participant remarked, "It shows how, even though people can have issues and be seen in a negative aspect from the outside, you never know what's going on in someone's life, and how they're dealing with it… and you learn how each one of these things can affect someone, dead or alive." This sentiment was particularly prevalent concerning some of the game's more unlikable characters, who were still treated with compassion and understanding. Comments such as "The 'unlikeable' spirits hit very close to home… Understanding someone's reasoning and still not agreeing, but helping them anyway, is a lesson in and of itself," and.

> What I loved about this game was how much you got to know each character. If you paid attention to tiny details when they speak or grab your attention, you learn a lot about them. Gwen stuck out to me a lot, especially as the first character you really get to know in depth. I related to her a lot and cried multiple times when hearing her story as we approached the gate. She was real and raw, she showed genuine emotion,

made mistakes, and still made me love her towards the end. Gwen taught me a lot, and I would only learn so much more from each of the characters. This game did an amazing job at making genuine, imperfect people; people who aren't heroes, people who you'd most likely judge in the real world, and that's so amazing to me because it's not sugarcoated. Giovanni slept with a woman and cheated on his wife. What an ass. I still loved talking to him and loved hearing about him. Thank you Thunder Lotus Games for teaching me that even asses can have pure spots in their hearts.This increased sensitivity and awareness carried over to players' real-life interactions, leading to a more compassionate and empathetic approach in their relationships and social encounters.

Additionally, participants noted that *Spiritfarer* offered valuable lessons on forgiveness for both themselves and others. The game's narrative delved into themes of regret, guilt, and reconciliation, encouraging players to reflect on their lives and recognize the importance of forgiveness in healing and personal growth. Participants appreciated the game's teachings on forgiveness, particularly when accepting the more flawed characters and their mistakes. One participant observed, "I learned not to take each day for granted, and that every person has their own story with their own reasoning. As [game character] Stanley said, sometimes good people do bad things, and that's okay. It's important to learn why and to forgive them." Other participants commented on the themes of forgiveness, with quotes such as, "Spiritfarer teaches you so much, from steps in grief, forgiveness, and kindness," and "This game has opened my eyes to new perspectives, especially forgiveness, and has undoubtedly improved even my everyday life."

Discussion

The findings from our study on *Spiritfarer* suggest that it has an impact on players in terms of emotional response, personal connection to its narrative, and therapeutic benefit. Our study is supported by previous research that has found that video games can elicit strong emotional responses in players (Christoph & Tilo, 2012), and that games with well-developed narrative and character design can foster empathy and emotional attachment to in-game characters (Greitemeyer & Osswald, 2010).

Our findings hint at the potential for Spiritfarer's unique and innovative design to influence players in ways that go beyond typical gameplay experiences. As detailed in our results, there is evidence that this game may offer emotional and therapeutic benefits, as well as potential educational insights, due to its nuanced handling of themes such as death and the afterlife. The balance of gameplay elements with a rich and moving narrative emerged as a distinctive aspect of *Spiritfarer*. The game seemingly integrates resource management mechanics with meaningful character interactions and poignant storylines, offering players an engaging, immersive experience that aligns with their emotional journey through the game. It is perhaps this balance that allows the game to avoid the tedious grind often associated with resource management games, transforming it instead into a comforting (Chan et al., 2022), enjoyable activity for players. The lack of a fail state in *Spiritfarer* also contributes to the player experience. The absence of punishment and the reward for mistakes in crafting tasks create a low-stress, forgiving environment that encourages experimentation and exploration. This game design choice resonated well with participants who stated that it ensured their engagement without creating the frustration often associated with potential failure in other games.

Another major theme in our findings revolves around the strong personal connection players felt towards the characters and the emotional responses that the game evoked. This connection is formed through a shared sense of [strong emotion] between the player and the characters in the game (Dunlap & Kowert, 2021). Through this design decision, the gameplay is elevated where it is not a "tromp through trauma" (Dunlap & Kowert., 2021, p. 129) but rather a shared journey intertwining the experiences of the players and the game characters.

This shared journey can enhance the player's emotional investment, making the gameplay experience more meaningful and personally resonant. Participants often related the game's characters to their personal experiences, further solidifying this bond (Sidu & Carter, 2021). Findings indicate that this connection can be quite intense, leading to strong emotional responses, including catharsis and even tears. This is in line with other work such as Daviault (2012) and Coulson et al. (2012) that found that players could foment personal emotional attachments to non-player characters (NPCs), even going so far as to define them as friends. When reviewing player diaries of gameplay, Mallon and Lynch (2014) identified player emotional attachment to NPCs based on the depth and meaningfulness of the characters. Certainly the *Spiritfarer* characters offer the player detailed and emotional backstories with which to engage. However, as Burgess and Jones (2020) observe, there is a gap in the literature regarding emotional attachment to NPCs, which would be a compelling avenue for future research.

Further, it is crucial to note that for some players, these emotional responses can be overwhelming and even distressing, suggesting that while *Spiritfarer* can offer a deeply moving shared experience, it may not be suitable for all players, particularly those dealing with recent traumas or losses (Shaiman, 2020). The balance between shared empathic journeying and individual emotional readiness should be carefully considered when engaging with games like Spiritfarer and developers should consider this as little is known about which situations and gameplay elements and how they will elicit specific emotions (Behnke et al., 2021), especially for content that may be traumatic in nature (Younis & Fedtke, 2023). More research is needed in this area.

In terms of educational and therapeutic benefits, our findings suggest that Spiritfarer serves as a unique tool for fostering understanding and acceptance of death and grief. The game offers insights into palliative care and the varied ways individuals grieve, broadening players' perspectives and nurturing empathy. Players also found a degree of therapeutic benefit from the game, especially those dealing with personal losses. The safe and supportive environment the game provides allows players to confront their emotions and find closure. Previous studies have found that video games can be beneficial for individuals coping with grief and loss (Baker, 2022; Pearce et al., 2022). Despite *Spiritfarer*'s advertised focus on death, participants overwhelmingly described playing the game as being cozy, relaxing, soothing, and a way to unwind. Cozy games, sometimes referred to as "cozy management games," are a subgenre of simulation and management games that tend to have a relaxed, low-pressure gameplay experience (Favis, 2020; Short et al., 2017; Wäppling et al., 2022; Waszkiewicz & Bakun, 2020). They often feature peaceful or idyllic settings, simple controls, and a focus on daily tasks, crafting, and social interaction, exemplified in popular cozy games *Stardew Valley* and the *Animal Crossing* series (Favis, 2020; Wäppling et al., 2022; Waszkiewicz & Bakun, 2020). Many players of Spiritfarer described it as a cozy game, a finding supported by the abundance of quotes that were coded as "Soothing or Calming."

Cozy games often have stylized, less realistic graphics and soothing soundtracks, making them well-suited for long-term casual or stress-free gaming (Wäppling et al., 2022;

AECT

Waszkiewicz & Bakun, 2020). Looking at the gameplay, cozy games are generally characterized by more simplified gameplay with a low-stakes nature in a safe environment (Short et al., 2017). Cozy games allow players to interact with their surroundings, engage in various tasks to gather resources, and build and maintain their personal space (e.g., a village, house, farm, or island). This emerging game design aesthetic has garnered attention in the field of serious game design. For example, in another project, researchers are examining how to incorporate a feeling of safety–or coziness–into game development, along with character design and expertise in developing children's media, as a case study for a voice therapy serious game (Chan et al., 2022).

Currently, understanding player perceptions of coziness is an important and growing area of games research. In response to Waszkiewicz and Bakun's (2020) suggestion to use the term "cozy" for games that evoke a sense of safety, promote self-actualization, and utilize gentle aesthetics, a group of researchers sought to enhance the understanding of games that could potentially improve mental health and enable players to navigate complex emotions. In their study, they conducted a detailed analysis of Nomada Studios' game *Gris* and investigated how elements of coziness factored into the relationship between games, emotions, and mental health (Baker, 2022). This area warrants further research and can address some of the confusing and conflicting results regarding the effectiveness of serious games in education (Watt & Smith, 2021).

Finally, our study shows that *Spiritfarer* can foster long-term changes in players' attitudes and behaviors, including increased empathy, compassion, and forgiveness. This is supported by previous research, such as Bogost (2011), who argues that one of the "unique properties of video games is their ability to put us in someone else's shoes" (p. 18), even beyond the typical power fantasies associated with video game lead characters. For example, a study by Bormann and Greitemeyer (2015) suggests that video games can lead to increased prosocial behavior, mirroring our study's findings that *Spiritfarer* prompts players to reach out to loved ones or express love and gratitude towards people in their lives.

There is a growing interest in determining whether video games, whether serious or not, can instill empathy in players, with some preliminary positive research on the subject (Bachen et al., 2012; Doreille et al., 2021; Huang & Tettegah, 2014; Schrier et al., 2022; Schrier & Farber, 2021). While much of the research into video games and learning focuses on knowledge and skill acquisition, less attention has been given to the reflective socio-emotional learning experiences that many *Spiritfarer* research participants reported, such as emotional acceptance, embracing forgiveness, contacting loved ones, and considering multiple approaches to grief. It is also worth noting that the capacity for video games to engender such changes also relies heavily on the individual player's receptiveness, personal circumstances, and the context in which the gameplay occurs (Bachen et al., 2012; Vorderer et al., 2004). Further research into these variables could provide a more comprehensive understanding of the potential for video games like *Spiritfarer* to facilitate lasting socio-emotional learning experiences (Bachen et al., 2012).

Limitations

The findings in this manuscript should be interpreted considering the study's limitations. The results are context-specific and may not apply to other settings or populations due to the qualitative nature of the study. Additionally, the asynchronous nature of data collection presents a significant limitation. This approach, while convenient, lacks the dynamic interactions typical in synchronous methods, potentially limiting opportunities for in-depth

probing and immediate elaboration of participant responses. Such limitations could affect the depth and clarity of the data gathered.

The recruitment strategy targeting fan groups of the game may also introduce selection bias, as participants likely have a positive predisposition toward the game. Furthermore, the study's reliance on self-reported and subjective player responses, educational benefits, and long-term outcomes poses another limitation. Participants' self-perceptions and recollections may not entirely reflect actual changes in attitudes, behaviors, or emotional states, and the absence of objective measures or follow-up assessments makes it difficult to substantiate reported changes. While the findings offer preliminary evidence of the potential benefits of Spiritfarer, caution is necessary in interpreting these results.

Conclusion

In conclusion, our study on Spiritfarer underscores its multifaceted impact on players, encompassing emotional connection, empathy, and processing of grief in a safe environment. The iterative development of our theoretical model, guided by themes identified and remapped through data analysis, has culminated in a comprehensive understanding of Spiritfarer's influence. This is visually represented in our conjecture map (Fig. 1), which delineates the complex relationships and dynamics of player experiences within the game.

Our findings reveal that Spiritfarer, through its innovative design, narrative depth, and gameplay mechanics, not only provides an emotionally impactful experience but also contributes to personal growth, emotional wellbeing, and learning about delicate topics like death and palliative care. The game's unique elements—such as its cozy ambiance, hand-drawn aesthetics, and the novel hugging mechanic—enhance its therapeutic and educational potential. This aligns with previous studies that highlight the emotional and empathetic engagement video games can foster (Christoph & Tilo, 2012; Greitemeyer & Osswald, 2010). Moreover, our research extends the understanding of 'cozy games' and their potential in promoting mental health benefits. Spiritfarer exemplifies how a game can create a soothing, low-pressure environment, allowing players to explore sensitive themes in a comforting manner. This approach in game design, as we've shown, can effectively contribute to players' emotional processing and learning experiences.

The study also underscores the need for further research into the nuanced ways players engage with and are impacted by video games. Investigating the emotional attachments to non-player characters (NPCs), exploring the balance between empathetic journeying and individual emotional readiness, and understanding the complex interplay of game design elements in eliciting specific emotions are areas ripe for future exploration. Spiritfarer's impact extends beyond the immediate gaming experience, fostering long-term changes in attitudes and behaviors such as increased empathy, compassion, and forgiveness. This supports the notion that video games, whether categorized as 'serious' or not, can be powerful tools for socio-emotional learning and personal development. The potential of video games like Spiritfarer in facilitating reflective socio-emotional learning experiences is a significant contribution to our understanding of the broader educational capabilities of gaming. Finally, our study not only contributes to game studies by showcasing the profound and varied impacts of video games on players but also opens new avenues in mental health and educational technology. By demonstrating the potential of video games like Spiritfarer in emotional learning and personal growth, it advocates for a more nuanced approach to game design and analysis, considering their therapeutic and educational dimensions.

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Appendices

Appendix A: Lived Experience Descriptions

- Prompts used to elicit lived experience descriptions:
- Describe your experience playing Spiritfarer.
- What parts of the game were the most compelling to you?
- What specific gameplay elements stood out to you the most (e.g., fishing, gardening, the meteor minigame, etc.)?
- How would you describe the game's tone and visual aesthetic and why? (e.g. graphics, animation, music, noises, etc.)
- What narrative/plot/story elements stood out to you the most and why?
- How much of the game did you complete? How did you know you were done with the game?
- If you were going to recommend Spiritfarer to a friend, what's a spoiler-free synopsis you would give?
- What kinds of real-life experiences did playing Spiritfarer invoke?
- What did you learn from playing Spiritfarer?

Appendix B: The codebook we used to analyze our data

Major Theme: Positive Affect towards Game & Design Decisions	
Sub Theme	*Definition*
Marathon Playing	Coded when a participant stated that they played Spiritfarer non-stop, for many hours at a time over an extended period of time, or played the game repeatedly
Positive Perception of Game Asset	Coded when a participant stated that they enjoyed a specific asset of the game (i.e. music, animation, graphics, level design, narrative structure)
Hugging Mechanic	Coded when a participant brought up the hugging mechanic of the game
Unique Experience	Coded when a participant stated that they found the gameplay/experience of playing Spiritfarer to be unique or different than typical gameplay experiences
Shared with Others	Coded when a participant felt strongly about the game where they shared or played it with others
Major Theme: Connection to Real World Grief	
Sub Theme	*Definition*
Loss of Person or Pet	Coded when a participant said that playing the game evoked memories of the loss of a person or a pet from their life

Major Theme: Positive Affect towards Game & Design Decisions	
Sub Theme	*Definition*
Personal Closure	Coded when a participant said that playing the game helped them gain closure to a loss they experienced in their real life
Therapeutic Benefit	Coded when a participant said that playing the game was therapeutic or provided with a way to work through their personal issues
Major Theme: Felt Connection to Characters	
Sub Theme	*Definition*
(General)	Coded when a participant said that a character was relatable or that they felt a sense of connection, kinship, or bond with
Character Reminds Player of Real Life Person	Coded when a participant said that a character in the game reminded them of someone they know or knew in their life
Player saw themselves in one of the characters	Coded when a participant said that a character in the game reminded them of themselves or they saw a trait of themselves in a character
Major Theme: Emotions Experienced by Gamers	
Sub Theme	*Definition*
(General)	Coded when a participant states that playing Spiritfarer evoked some kind of strong emotion. This is coded when none of the sub themes quite apply
Soothing or Calming	Coded when a participant describes Spiritfarer as being a relaxing, cozy, calm, etc. gaming experience
Elicit Tears	Coded when a participant states that playing Spiritfarer made them cry
Overwhelming	Coded when a participant states that they had to stop playing Spiritfarer temporarily or permanently because of the strong emotions that the game made them feel
Cathartic	Coded when a participant says that they found catharsis in playing the game
Major Theme: Reflection on life	
Sub Theme	*Definition*
Changed outlook on life	Coded when a participant reflects on a change in how they perceive life, how to spend their life, and their relationship with others in life
Positive Impact on Self	Coded when a participant says the game had a perceived positive impact on their own life
Major Theme: Educational Benefits	
Sub Theme	*Definition*
Learned Nothing	Coded when a participant said they did not learn anything while playing Spiritfarer
Developing compassion or empathy for others	Coded when a participant said that playing the game helped them to develop compassion for others
Forgiveness	Coded when a participant said that playing the game taught them how to forgive others
Beliefs and perceptions on death	Coded when a participant broadly says that they learned about the realities of death and loss

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Major Theme: Positive Affect towards Game & Design Decisions	
Sub Theme	Definition
Letting Go	Coded when a participant said that playing Spiritfarer taught them about letting go of loss and or grief
Okay to cry and or feel emotions	Coded when a participant said that playing this game made them realize that it is okay to cry and or feel their emotions
People grieve differently	Coded when a participant said that playing the game taught them that others grieve differently and it may not look the same in everyone
Palliative Care	Coded when a participant said that playing the game taught them more about palliative care, what it is like for those who provide end-of-life support, etc

Data availability Data is made available upon reasonable request.

Declarations

Conflict of interest None.

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