To what extent does character design and narrative affect player immersion and emotional engagement within video games?

By

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Declaration

I, Morgan Wynn Jones declare that I am the sole author of this Project; that all references cited have been consulted; that I have conducted all work of which this is a record, and that the finished work lies within the prescribed word limits.

This work has not previously been accepted as part of any other degree submission.

Form of Consent

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Abstract

This dissertation explores how character design and character narrative impact player immersion and emotional engagement in video games. Drawing from psychological theories, industry insights, case study analysis, and primary research, the study examines how specific design and storytelling choices foster players' immersion and emotional connections with characters.

A comprehensive literature review investigates psychological concepts along with character design and narrative, considering how these elements influence player immersion and emotional engagement. Case studies of *Baldur's Gate 3* and *God of War (2018)* compare different approaches to character and narrative construction, contrasting open-ended, player-driven experiences with linear, cinematic storytelling. Primary research, which includes a player survey on the dissertation topic and a controlled playtest of *Resident Evil 2 (2019)*, collects both qualitative and quantitative data on player responses to character design and narrative elements.

The findings indicate that while customisation and player agency, as demonstrated in *Baldur's Gate 3*, can enhance emotional investment; strong identification with predefined characters, like Kratos in *God of War*, often leads to deeper immersion. Emotional engagement is more significantly influenced by gradual character development, compelling performances, and relatable motivations than by visual fidelity alone. Participants expressed a preference for narratives that allow character growth to unfold naturally during gameplay, rather than being delivered through early exposition. Although character aesthetics initially attract interest, meaningful connections are ultimately dependent on emotional depth and storytelling. Additionally, gender alignment was found to influence character choice, enhancing self-identification and immersion. Finally, the design of enemies and environmental storytelling, particularly in *Resident Evil 2 (2019)*, played a crucial role in reinforcing emotional tone and maintaining player immersion. Overall, the study emphasises the importance of authentic character construction, strong emotional arcs, and gradual narrative development in creating immersive and emotionally engaging player experiences.

The study concludes that successful character and narrative design are essential for creating emotionally resonant and immersive player experiences. It stresses the need for developers to focus on building characters with authentic emotional depth, gradual development, relatable motivations, and strong performance-driven portrayals. Furthermore, developers should ensure that character interactions and narrative pacing are crafted in ways that allow players to feel fully immersed in the character's journey. Whether through structured storytelling or player-driven choices, the connection between player and character must be consistently reinforced to maintain both immersion and emotional engagement throughout the gameplay experience.

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1.0 Introduction

1.1 Key Terms, Definitions & Abbreviations

Character Design (CD)

Character design in video games involves creating and developing the appearance, personality, and overall visual style of the game's characters. This process combines artistic and narrative elements to craft characters that are engaging, memorable, and effectively support the game's story and gameplay mechanics.

Character Narrative (CN)

Character narrative in video games refers to the story, personality, development, motivations, and performance of a character as they progress through the game. It involves how a character's backstory, relationships, actions, and dialogue contribute to the overall plot. Additionally, it encompasses how the character evolves and interacts with the world and other characters throughout the game.

Player Immersion (PI)

Player immersion in video games is the state in which a player becomes deeply engaged and emotionally connected to the game world, its characters, and its narrative. When players are immersed, they feel as though they are part of the game, rather than merely observing or controlling it. This deep level of engagement draws them into the experience.

Emotional Engagement (EE)

Emotional engagement in video games refers to a player's emotional connection and investment in the game's narrative, characters, and events. This experience occurs when players are emotionally moved—feeling excitement, sadness, joy, empathy, fear, or other emotions—through their interactions with the game.

God of War 2018 (GOW)

God of War (2018) is a highly acclaimed action-adventure game by Santa Monica Studio that reimagines the franchise through a narrative-driven lens. Set in a world inspired by Norse mythology, it follows Kratos and his son Atreus on a journey exploring themes of growth and fatherhood. The game is praised for its cinematic storytelling, detailed environments, and character development, winning multiple Game of the Year awards.

Baldur's Gate 3 (BG3)

Baldur's Gate 3 is a critically acclaimed role-playing video game developed by Larian Studios, set in the Dungeons & Dragons universe. It offers a deeply immersive, choice-driven experience with turn-based combat, extensive character customization, and branching narrative paths. Players can shape their story through dialogue, decisions, and relationships. The game is praised for its complex characters, emotional depth, and emphasis on player agency. By blending cinematic storytelling with classic RPG mechanics, it has earned multiple Game of the Year awards and has redefined modern role-playing standards.

Resident Evil 2 Remake (RE2R)

A modern reimagining of the 1998 survival horror classic, Resident Evil 2 Remake was developed by Capcom and released in 2019. Set in the zombie-infested Raccoon City, the game follows rookie police officer Leon S. Kennedy and college student Claire Redfield as they fight to survive a viral outbreak. With high-fidelity graphics, atmospheric design, over-the-shoulder gameplay, and performance capture, the remake revitalized the franchise, offering intense gameplay, emotional storytelling, and immersive world-building. It received widespread acclaim for successfully blending nostalgia with contemporary horror game design.

1.2 Dissertation Introduction

Video game design is a multidisciplinary field that combines art, storytelling, and technology to create immersive and emotionally resonant experiences. Among the many elements that contribute to a game's impact, character design(CD) and character narrative(CN) play a significant role in shaping player immersion(PI) and emotional engagement(EE). This dissertation explores how these two factors influence players' psychological experiences and the emotional depth of their connection to in-game characters.

Chapter 2 begins with a comprehensive literature review that examines key psychological theories related to PI and EE, such as self-projection, empathy, and flow theory, exploring how these are influenced by CD and CN structure. It discusses how realism in visual fidelity and performance capture enhances immersion and emotional authenticity, as well as how emotional control, NPC dynamics, and sensory audiovisual elements support player connection. The chapter also incorporates industry insights, such as GDC talks and developer interviews, highlighting real-world video game industry practices.

Chapter 3 focuses on two case studies: *Baldur's Gate 3*(BG3) and *God of War 2018*(GOW). These titles showcase contrasting approaches to CD and storytelling. *BG3* emphasises player agency and open-ended narrative paths with highly customisable characters, allowing players to shape their own emotional journeys. In contrast, *GOW* presents a linear, cinematic story centred on a predefined protagonist, offering a tightly structured emotional arc. This chapter analyses how these different methods of character and narrative design affect PI and EE.

Building on the theoretical groundwork, Chapter 4 outlines the methodology for primary research, which includes designing a survey targeting experienced game enthusiasts to gather both qualitative and quantitative data related to CD and CN influencing PI and EE. Additionally, a controlled playtest of the *Resident Evil 2 Remake*(RE2R) was conducted, followed by a second survey. This process allowed for fresh, focused feedback based on immediate gameplay experiences and provided a secondary dataset for comparison.

Chapter 5 presents an initial analysis of the collected data, identifying recurring themes, correlations, and any notable contradictions with the existing literature.

In Chapter 6, a deeper exploration links survey and playtest responses to the theoretical and case study findings. This chapter draws connections between the ways players emotionally engage with characters and the specific design and narrative choices developers make to enhance immersion.

Chapter 7 summarizes the key findings from the research, case studies, surveys, and playtest data, providing a comprehensive reflection on how CD and narrative influence PI and EE. It emphasizes the significance of thoughtful and well-executed design in fostering meaningful connections between players and the game. Additionally, it highlights how these elements can be utilized to enhance the overall gaming experience.

2.0 Literature Review

CD and CN fundamentally shape EE and PI in video games. This chapter reviews existing literature, drawing upon academic studies, industry insights, and theoretical frameworks. The review will examine the key psychological factors of the player, alongside the influence of character aesthetics and storytelling. Furthermore, literature and interviews from game design professionals and game art books will offer a deeper understanding of how industry practices inform CD. This chapter aims to establish a foundation for the research topic by analysing these sources.

2.1 Player Psychology

Psychological Identification: The paper *Identification with the player character as determinant of video game enjoyment*[1] by Dorothée Hefner, touches upon a self-concept theory from the paper *Psychological escapism: predicting the amount of television by need for cognition*[2]. This theory suggests that audiences adopt the protagonist's identity when engaging with media. They perceive or imagine themselves as the media character, which leads them to alter their self-concept to align with that of the protagonist[3].

Hefner discusses applying this theory to video games by having 30 males play the video game *Battlefield 2*. The conclusion suggests that when players are given a character or role to play, they will alter their self-concept by incorporating the relevant traits of that character.

> Results confirm the interplay of interactive game use, identification and enjoyment. People playing the game and thus having the possibility to act efficiently within the character role identify with the game protagonist to a much larger extent than people do who could not interact with the game. The interactive use of the combat game "Battlefield 2" thus allowed for more intense, 'authentic' vicarious or simulated experiences of 'being' a soldier in a modern combat scenario, while such experiences were less accessible or less intensive in those participants who had only watched a recording of a game play session. Such identification with the soldier role was furthermore associated with a higher degree of enjoyment which indicates that identification is an important cornerstone for understanding game enjoyment. The findings on the self-descriptors "masculine" and "dominant", finally, suggest that the male players that had been invited to this study tend to find the role of a warrior attractive and thus engaged in identification with this role[4].

Self-projection: The article *Psychological Effects of Character Customization in Video Games*[5], discusses how the ability to personalise characters goes beyond mere appearance changes. It can significantly influence a player's sense of identity, immersion, confidence, and social interaction. By creating avatars that reflect their authentic or aspirational selves, players can enjoy greater self-expression and develop a stronger connection to the game environment. However, these psychological effects vary among individuals and can depend on traits such as age, gender, and personality[6].

This term of self-projection in video games is then further backed up in the report *Self-Portrayal in a Simulated Life: Projecting Personality and values in The Sims 2*[7], where Griebel tested 30 participants on how they would create their character in the life simulation game The Sims 2. The results of this primary research showed that most of the test subjects projected aspects of their personalities into their characters, further immersing themselves in the game world.

> It can be seen that participants did indeed project certain aspects of their personalities, values and characteristics into their Sims. The data suggest that personality traits such as neuroticism, openness and conscientiousness, values such as wealth, creativity, flirting and fidelity, and personal characteristics such as race, gender, age, need for cognition, perceived number of enemies and parental marital status all relate to different ways in which people play The Sims 2[8].

Compensation: Alternatively, there is the concept of compensation, where players may seek to embody desirable qualities in themselves through characters that evoke strong emotional responses. This, in turn, drives a greater EE with these characters.

In the report *The Ideal Elf: Identity Exploration in World of Warcraft*[9], it is noted that when players create their own virtual avatars in the Massive Multiplayer Online Role-Playing Game (MMORPG), they often design characteristics to reflect their ideal selves, compensating for attributes they may feel they lack in the real world.

> From these ideas, we argue that MMORPGs are a mode by which the player, through a constructed character, can enact aspects of his or her ideal self—the physical or psychological self the player wishes to be. For instance, a young player can create a character who is more mature, braver, stronger, or more outgoing than the player feels he himself is. This fantasy-creation process is supported by the fact that the player has an audience and collaborators who have no prior knowledge of the player or his real-life situation[10].

Empathy: In his book *Engaging characters: Fiction, Emotion and Cinema*[11], Murray Smith discusses how psychological factors such as empathy can help formulate character engagement through emotional simulation.

> While the structure of sympathy is an acentral structure, then, it contains and draws upon central imagining. Central imagining, or what psychologists call empathy, can in turn be broken down into a series of more narrowly defined mechanisms: emotional simulation, motor and affective mimicry, and autonomic reactions like the startle response. These phenomena function as comprehension mechanisms which feed into the structure of sympathy, working with other cognitive processes (perception, inference, schematic processing) in the construction of characters and narrative situations, but may also function as a subsystem at odds with the structure of sympathy. One of the key mechanisms for arriving at the kind of acentral assessments Carroll posits may be a form of imaginative 'simulation' of the mental states of characters. While such simulation may not be necessary, it is not uncommon. A comprehensive theory of spectatorial response to character must incorporate these phenomena in addition to the more familiar cognitive, acentral processes that Carroll believes exhaustively describe the nature of our responses to character. We must address, therefore, both acentral imaginative processes and these central or empathic phenomena, in formulating a theory of character engagement[12].

While the book primarily discusses characters in cinema, the same design principles could be applied to characters in video games to enhance PI and emotional EE through empathy. By creating characters that evoke strong emotional responses, such as admiration or sympathy, developers can foster a deeper emotional connection between players and characters. This connection can lead to higher levels of immersion.

Sense of Agency: *Supermassive Games[13]*, the developers of *The Dark Pictures Anthology[14]*, rely heavily on the chaos theory known as *The Butterfly Effect*[15]. This concept suggests that small changes can lead to significant consequences. In the Dark Pictures series, this theory is embodied by providing players with a large cast of characters to control, each of whom is at risk based on the player's narrative choices. By allowing players to make decisions impacting the story, the game fosters a sense of agency, enhancing PI.

Similarly, Sebastian Domsch discusses the importance of agency in quest design, in his book *Storyplaying: Agency and Narrative in Video Games*[16]. He emphasizes how implementing agency can effectively immerse players in the gaming experience, as

> *it is possible that the structure of a quest is fundamentally influenced by events outside of that quest, usually prior to the beginning of a quest. This leads to a much more dynamic and narratively immersive experience by the player, since it both strengthens the impression of narrative coherence of the gameworld (as events that should make a difference actually do make a difference) and of the openness of the narrative, as the range of options is increased. Logically speak-ing, this means that there are two or more quests that are similar to each other, only one of which will become available to the player, depending on certain pre-conditions at the time of the quest's activation. But the player's experience will more likely be that there is one quest that changes according to decisions made earlier*[17].

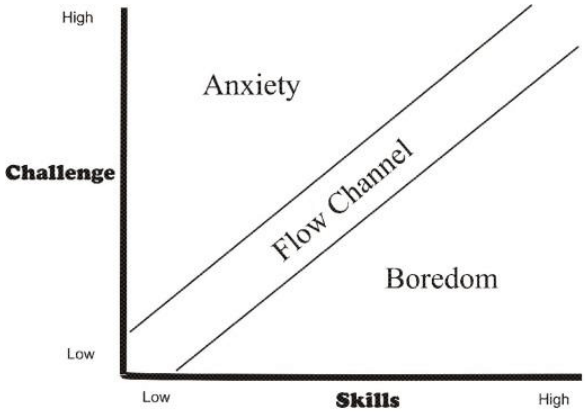
Companionship: In the book *Level Up! The Guide to Great Video Games*[18] by Scott Rogers, the author discusses how to design non-playable characters(NPCs) in a way that encourages players to care for them genuinely. By establishing a relationship where both the player and the NPC rely on each other throughout the game, the player becomes emotionally engaged with the NPC and the connection between the NPC and the protagonist.

This dynamic creates a bond similar to a parasocial relationship as "*If designed correctly, this co-dependency between character creates a protective relationship in which the player comes to genuinely care about the welfare of the NPC*"[19]. Therefore, when the player begins to care about characters, it is surmised that they are emotionally engaged with the game.

2.2 Player Immersion and Emotional Engagement

To create a truly immersive gaming experience, we must first examine four forms of immersion that will impact players throughout the game:

Cognitive: When players are mentally engaged with a game's mechanics, puzzles, or challenges, they often achieve a state known as 'Flow'. *The concept of flow*[20], introduced by psychologist Mihály Csíkszentmihályi, describes a mental state where a person is fully immersed and enjoying an activity. 'Flow' occurs when the challenge of a task aligns with an individual's skill level, resulting in deep engagement and intrinsic motivation.



(Figure 1: Diagram visualising '*Flow Theory*'[21]).

In the paper *Toward an understanding of Flow in Video Games*[22], it's concluded that users can enter a flow state when immersing themselves in video games.

> As a result, games give immediate access to their inherent potential for optimal experience, and that potential is facilitated by the structured nature of further gameplay. Thus there is a common correlation between simply completing computer games and getting in the flow[23].

Sensory and Perceptual: The audiovisual design of a game, including elements such as realism and virtual reality, can enhance players' sense of physical presence within the game world. Aki Järvinen examines the components of audiovisual design in video games in *Gran Syllissimo: The Audiovisual Elements and styles in Computer and Video Games*[24], which consist of three elements: 'Dimension', 'Point of Perception', and 'Visual Outlook'. While the dimension of a game can significantly impact the player's experience, particularly in terms of the environment, this study primarily focuses on the 'Visual Outlook' and 'Point of Perception', which refers to the perspective from which the player experiences the game, typically associated with the game's playable character. In contrast, the visual outlook pertains to the overall graphical design of the game.

> Point of perception: Point of perception is an element closely tied to dimension. Dimension does not strictly dictate the point of perception, but it particularly affects how the player experiences the auditive elements. Dimension and point of perception together make up the game environment's rough form. Point of perception is the position from which the player perceives, i.e. both sees and hears, what goes on in the game environment. It can be compared to the dominating view discussed in theories of narratives and narration, but it is not quite the same thing, because of the highly interactive and non-narrative nature of most games. One of the reasons for this is that in

> games, the player is often able to manipulate the point of perception (PoP). It doesn't have to be static: 1st (like in e.g. Doom, the Quake series and other 'first-person shooters'), 2nd (text adventure games) or 3rd person (platform jumpers, Oriental fi ghting games, etc.), but several PoPs can be offered to the player[25].
>
> Visual outlook: Dimensionality and PoP are not enough to make up the audiovisual appearance as a whole. They are, in a sense, a stage upon which the visual outlook of the game is drawn. This happens with so-called textures and polygons. If the game characters and environments are a result of fictional settings, the visual outlook is the result of graphic design. If, on the other hand, they are based on real-life counterparts (e.g., sports stadiums, sports stars, characters from films or comics), the characters and environments are modelled on them[26].

Emotional control: Video games can affect players by leveraging narrative, mechanics, aesthetics, and interactivity to influence emotions, engagement, and decision-making. Narrative and character attachment are effective tools for controlling the player's emotions, as games utilize storytelling and character development to elicit emotional responses. For example, well-developed characters with realistic emotions and backstories can create deep player connections as seen in video games, *The Last of Us*[27] and *Red Dead Redemption*[28].

Torben Grodal discusses the use of emotional control in the paper, *Video games and the pleasures of control*[29]. Gordal begins by discussing how video games differ from traditional forms of entertainment. Films and television present a fixed narrative that viewers passively follow, while some video games offer an interactive experience that enables players to actively shape the game's storyline. This ability to influence the direction of the narrative fosters a sense of immersion, which is often described as a unique form of engagement[30].

Gordal states that video games can be more immersive and engaging for the audience, explaining that certain interactivity between the player and the game world can activate various mental and bodily functions.

> The interactive interface between player and game-world makes the coping reactions to arousing events into concrete coping procedures. Therefore, video games elicit fluctuating emotional labeling procedures in relation to coping potentials in the given situation. This labeling will change over time as a function of the player's learning. They will activate a series of mental and bodily functions: attention, arousal, cognitive appraisals of arousal, cognitive mapping, procedural schemata, and motor

> performance. A given arousal-eliciting event will continuously be relabeled. A panic-evoking situation can, by learning processes, be transformed into a fear-evoking or aggression-evoking event, or eventually be totally controlled and be interpreted as a cause for playful mastery.
>
> Contrary to film, video games are output-driven. Furthermore, a game is meant to be played several times, and therefore a given outcome is not final, but part of cognitive and emotional learning processes similar to everyday learning. The input-mastering by coping reactions will influence the experience of curiosity, surprise, suspense, and explorative coping in the player's different performances in a given video game[31].

2.3 Character Design & Narrative

Character Design: In the book *Character Development and Storytelling for games[32]*, the author Lee Sheldon discusses how well-rounded characters are usually '*Three Dimensional*', a concept coined for characters that are designed with three key aspects in mind: '*The Physical Character*', '*The Sociological Character*' and '*The Psychological Character*'[33].

> The easiest dimension to reveal to your audience is the physical character, particularly in visual media……
>
> The sociological character includes the character's past, their upbringing, and their environment, both local and cultural. By giving a character a past, we put their actions in perspective. They are no longer simply authorial conveniences, but they add weight and interest to the character….
>
> The psychological character. We build relationship with the characters we write, just as we do with people we meet in our lives. If we want that relationship to grow stronger, we need to know the person as well as we can[34].

This chapter, '*Respecting characters*'[35], emphasises that designing for media involves more than just creating appealing figures. By incorporating these three dimensions, we can truly bring characters to life, which, in turn, enhances PI and EE.

Realism: In recent years, video games have become increasingly realistic. Advances in visual quality and gameplay mechanics have enhanced immersion, thereby improving the overall gaming experience.

In the paper *Immersion and realism in video games – The confused moniker of video game engrossment[36]*, it is noted that high graphic fidelity can influence games by sometimes improving immersion, whilst sometimes having no effect, or even detracting immersion[37].

Research by Cheryl Braken indicates that players experience a greater sense of immersion when playing games with high-quality graphics that depict realism. The study involved participants playing several games, that differ between low and high image quality.

> The results of these studies provide some evidence that image quality impacts both the level and types of presence dimensions experienced by video game players. The results strengthen the claim that image quality influences sensations of presence. Further, the results support previous work with video games and presence. In doing so, they add to the growing body of literature on video games, image quality, and presence and begin the process of synthesizing these important bodies of research[38].

Instances of diminished immersion related to realism may be linked to the *Uncanny Valley theory*[39]. This explains how an audience's reaction to a human-like robot can shift from empathy to revulsion as the robot approaches a lifelike appearance but falls short of realism.

Industry Insight: In researching video game development workflows, it became clear that developers focus primarily on characters and gameplay mechanics during the early stages of a game's development cycle. The following figures displayed come from various AAA games in their early development phases, illustrating that characters and mechanics take precedence over refined animations and environmental design.

(Figure 2: Call of Duty: World at War(2008) Early development footage[40]).

(Figure 3: Uncharted 4 (2016) Early development footage[41]).

(Figure 4: God of War(2018) Early development footage[42]).

(Figure 5: Dead Space Remake(2023) Early development footage[43]).

With the early access footage sourced from development vlogs and documentaries, we can see a clear pattern of characters and gameplay mechanics being prioritised alongside rough animations while keeping most of the environments as simple blockouts. This practice has been demonstrated over a fifteen-year period, from 2008 to 2023.

Corey Barlog, the game director of *God of War 2018(GOW)*[44], presented at the annual *Game Developer Conference*[45]. During his presentation, he addressed the challenge of players growing tired of the series protagonist Kratos and explained the process of redesigning the *GOW* franchise. Just four weeks into pre-production, Barlog introduced the redesign of *GOW*, focusing on character growth. He developed a concept called the '*Play Triangle*', which emphasised character growth as the central element, surrounded by narrative, combat, and exploration. For Barlog, the primary focus was on Kratos' character development and how each of the surrounding aspects would contribute to that growth[46].

(Figure 6: Visualisation of Cory Barlog's 'Play Triangle'[47]).

In *Doom(2016)[48]*, we are reintroduced to the main protagonist, the '*Doom Slayer'*. Who is described as follows:

> He chose the path of perpetual torment. In his ravenous hatred, he found no peace, and with boiling blood, he scoured the umbral plains, seeking vengeance against the dark lords who had wronged him, those who tasted the bite of his sword named him the Doom Slayer[49].

In the game, players take on the role of a one-man army, fighting through hordes of demons from hell and brutally eliminating enemies in a gore-fest of action.

For the game's successor, *Doom: Eternal*[50], the developers aimed to introduce a new enemy that would serve as the player's archenemy. This enemy, described by senior concept artist Emerson Tung as a "demonic gunslinger who acts as an anti-Doom Slayer"[51], is known as the '*Marauder'*. During the *The Art of Doom Eternal panel and Q&A session*[52], Tung emphasised the development team's focus on the player when designing the Marauder. They believed that to create an effective nemesis for the notorious *Doom Slayer*, mimicking his design while altering it to adopt a demonic persona was essential. This doppelganger concept makes the design choice fitting, as it incorporates hellish characteristics, creating the perfect nemesis for the player to face in battle[53].

(Figure 7: Marauder concept art from The Art of Doom Eternal[54]).

The video game *God of War: Ragnarok[55]* takes place during Fimblewinter. In Norse mythology, Fimblewinter is an apocalyptic winter that precedes the world's end. Art director Raf Grassetti discusses the redesign of Kratos' attire for game world cohesion to enhance PI within the game's setting[56].

> It was amazing to revisit our heroes and design their costumes thinking about what they have been going through since we last saw them. Since we knew they were training on their own and without the help of the Huldra Brothers, we went back to more simple and iconic costumes, from the way they would have made their own armor. You can see that reflected in the way things are stitched, the choice of materials, and being more thoughtful on how they are surviving the extreme weather conditions. We incorporated a lot of elements to illustrate the characters journey from the end of *God of War* (2018) to the beginning of *God of War Ragnarök*. The cold weather was definitely a very important factor, you can see on Atreus' costume, for example, the inverted pelt to protect him from the cold and Kratos using a bear pelt as well[57].

(Figure 8: The attire Kratos wore in God of War: Ragnarök[58]).

First impressions: Looking back to Lee Sheldon's '*Three Dimensions*' concept[33], the first dimension refers to the initial visual introduction when introduced to a character and their appearance. In the book *Better Game Character Designs A Psychological approach*[59], this concept is also mentioned as the 'Social surface', which covers the first glance surface impressions, where the audience applies interpretive strategies from the moment they lay eyes upon game characters.

Two key aspects mentioned in the concept of '*Social surface*' are attractiveness and stereotypes. Researchers conclude that attractiveness is

> part of the evolutionary process—that attractiveness is an indicator of healthiness. A person with asymmetry, obvious signs of disease, or a profile that indicates they may have trouble keeping their teeth in the long run would be a less attractive companion. Other researchers point out that gazing at attractive features puts people in a positive frame of mind from which they are more likely to evaluate anything about the person, or even what's happening in general, more positively[60].

When designing characters, it is important to make them visually appealing, as this can impact players' impressions from a psychological standpoint[61]. Additionally, creating characters based on stereotypes or archetypes can assist the audience in quickly assessing these characters, making it easier for them to identify with and connect to those they find relatable or appealing[62].

> Despite their drawbacks, stereotypes do serve an important purpose—they help people make quick assessments so that they do not have to evaluate each person completely "from scratch." The unconscious process of comparing what is seen with prototypes already in the mind and then using matches to make assumptions about that person, saves time and effort. This is important, given the short window of time normally available when meeting someone new. Stereotypes also help make everyday social encounters more comfortably predictable. If we and others adopt a given stereotypic code in our dress and behaviour, we can be pretty confident that we will be "read" the way we have planned. Game character designers rely heavily on stereotypes, a fact that has generated critique). Yet in a fast-paced game environment it can be helpful for a player to draw upon stereotypes to gauge a character's intentions and likely actions. For example, the endless hordes of enemies in many games work because they capitalize on the human tendency to assign common traits to those who display similar cues[63].

Character Narrative: Narrative is a fundamental way for humans to shape and share their experiences. Whether based on reality or fantasy, its coherence relies not on factual accuracy but on the internal structure of the discourse itself. A well-developed storyline can enhance immersion and deepen player engagement.

Brooke Maggs, narrative designer at *Remedy Entertainment*[64], covers CN in the article, *The Art of Video Game Narrative Design 101*[65] and states that

> If narrative designers understand the arcs and motivations of the characters and the importance of each narrative beat to tell the protagonist's story, they can better design the ways players will interact with the story[66].

Whilst there is the argument of narrative vs gameplay, Maggs talks about how the two should be intertwined. An example is given of "what gameplay abilities the player will gain over time?" followed by "why does the player gain the ability within the world"[67]. Maggs also covers how narrative designers talk about a character's 'inner journey', 'three-act structure' and 'climax' of their story, discussing how these elements are vital to storytelling and how the terms came from literature and film experts Joseph Campbell, Michael Hauge and Blake Snyder[68].

How a narrative is delivered is crucial for immersing players in the video game world and maintaining their engagement with the story. A controversial narrative decision in *The Last of Us: Part II*[69] required players to take control of a character named Abby, who had recently killed Joel(the protagonist from the previous game), a character players were already emotionally invested in. In the study *Player-Character Relationship and Game Satisfaction in Narrative Games: Focus on Player Experience of Character Switch in 'The Last of Us Part II'*[70], it was noted that out of 12 participants, "almost all players initially showed great reluctance, confusion, and anger when having to control the Abby character"[71]. This experiment suggests that unfavourable narrative delivery can disrupt the player's immersion and lead to a disconnection from the game.

Performance Capture: The book *Game Anim: Video Game Animation Explained* [72] highlights performance capture as one of the most significant innovations in video game animation. This process involves capturing an actor's performance, which is then utilized in computer-generated imagery. Performance capture records an actor's body, face, and voice simultaneously using motion capture cameras, head-mounted cameras, and microphones. This technique enhances the realism of animations by capturing real-time human movements and subtle facial expressions.[73].

In an interview with WIRED, Andy Serkis discusses his experiences with motion capture and its evolution into performance capture[74]. He explains that this process involves more than just capturing motion; it requires the actor to create a character by exploring psychological and emotional journeys that must be internalized. Serkis emphasizes that actors in performance capture roles should approach these characters just like any other acting role, as the technology captures every detail of their performance, enhancing the realism of the characters[75].

NPC's and Relationships: NPCs are essential for immersing players in the game world by placing them at the centre of the game's universe, making the environment feel more vibrant and alive. *Level Up! The Guide to Great Video Game Design*[18] explores various ways to effectively implement NPCs into the gaming experience.

> While your NPCs are waiting to provide help to players, give them something to do. NPCs are the extras in the video game universe, and just like extras, they need to be given business. In movie-making lingo, business is what extras do in the background of a scene to make it look as if life is going on regardless of what the actors are doing: eating, talking, chopping wood, washing the floors. Simple animations are a good start. Complex activities are even better. In some games, NPCs perform different activities depending on the time of day[76].

This extract illustrates how NPCs can be vital in making the game world come alive and immersing players through EE with these characters. A notable example of NPCs in video games is the *Mass Effect*[77] series, where players recruit a team of NPCs throughout the game's storyline. A bond is formed through interactions, combat, and relationship-building throughout the games narrative.

2.4 Literature Review Conclusion

This literature review examines the relationship between CD, CN, and psychological factors in shaping PI and EE. The subsequent section will identify recurring themes across various sources and highlight key gaps in existing research.

Immersion often starts with players projecting themselves onto characters—whether through appearance, traits, or values—creating a sense of identification that strengthens their connection to the game. This psychological projection is closely linked to flow theory, which describes a mental state of deep engagement that occurs when tasks are both enjoyable and appropriately challenging. While flow is typically associated with gameplay mechanics; narrative structure—particularly the three-act arc of a protagonist—can also enhance this experience. As players follow a character's challenges and growth, they remain immersed in both the story and the gameplay.

Realism can play a key role in heightening PI. High-quality graphics, audio design, and especially performance capture allow characters to express believable emotions through lifelike movement and facial expressions. This enhances emotional nuance and deepens player connection. However, realism must be carefully balanced; excessive fidelity can lead to

discomfort, as explained by Mori's "Uncanny Valley" theory[38], which suggests that near-human characters might evoke revulsion instead of empathy.

NPCs also support immersion by contributing to a living world. When NPCs exhibit empathy and consistent behaviour, players are more likely to form parasocial bonds, perceiving them as emotionally real. These connections enrich the narrative, making the game world feel dynamic and personal.

EE builds upon immersion, largely driven by psychological identification and empathy. When players assume a character's role—especially if that character reflects their choices or beliefs—they develop an emotional investment in the narrative. This sense of agency allows players to project their personalities onto protagonists, making the outcomes feel personally significant.

NPCs once again play a vital role in EE. Well-written characters with backstories, distinct personalities, and emotional depth encourage players to invest in their relationships, deepening their emotional ties to the game world. Design further reinforces this connection—characters with appealing aesthetics and expressive animations leave a lasting first impression, while poorly designed characters can diminish emotional investment from the outset.

CD and narrative are deeply interconnected in influencing both PI and EE. Through psychological identification, narrative flow, emotional control, and empathetic relationships, players become more absorbed in and connected to the game world. However, research frequently overlooks how these elements function in interactive media, often relying on passive forms of storytelling like film and television.

This study aims to build on previous research by surveying and analysing how CD and CN influence player experience. Additionally, a playtest of Resident Evil 2 Remake (RE2R) will be conducted, accompanied by a survey to assess player responses to emotional and immersive elements. This will contribute to a broader understanding of narrative design in games.

3.0 Case Studies

Video games offer a range of CD and narrative approaches that uniquely influence PI and EE. Open-ended narrative structures, such as those found in Baldur's Gate 3(BG3)[78], provide players with significant agency, allowing them to shape their characters' personalities, decisions, and story arcs. This design creates a deeply personalized experience, where emotional investment develops through the choices made and their consequences.

In contrast, linear narratives, exemplified by God of War 2018(GOW)[44], focus on a tightly controlled storytelling experience with a predefined protagonist whose development unfolds in a carefully crafted sequence. While this approach limits player agency, it allows for a cinematic level of storytelling, often delivering a more cohesive emotional journey.

By analysing these two approaches, this study explores how CD and narrative structure impact PI and EE.

3.1 Video Game: Baldur's Gate 3 (2023) – Open Character Design & Narrative

(Figure 9: Baldur's Gate 3 key cover artwork[79]).

BG3, the winner of the BAFTA Game Awards *2024* Game of the Year and Best Narrative[80], is a story-rich, party-based role-playing game(RPG) set in the Dungeons & Dragons(D&D) universe. Like D&D, BG3 uses dice rolls to determine the outcomes of narrative choices and combat actions, making player decisions feel dynamic and impactful. One of the game's most

immersive features is its deep character customisation system, allowing players to create a unique protagonist that truly reflects their vision.

From the very beginning, players can shape their character's race, class, background, and abilities. Each choice influences not only gameplay mechanics but also the overall story experience. This level of customization enhances EE as players forge a stronger personal connection to their character, making every victory, failure, and story moment more meaningful.

The character creator offers a wide range of options, including diverse fantasy races such as Elves, Dwarves, and Dragonborn—each with unique abilities that impact both combat and narrative interactions. With 12 distinct classes available, players can customize their playstyle, whether they prefer the brute strength of a Barbarian, the spellcasting prowess of a Wizard, or the stealthy tactics of a Rogue.

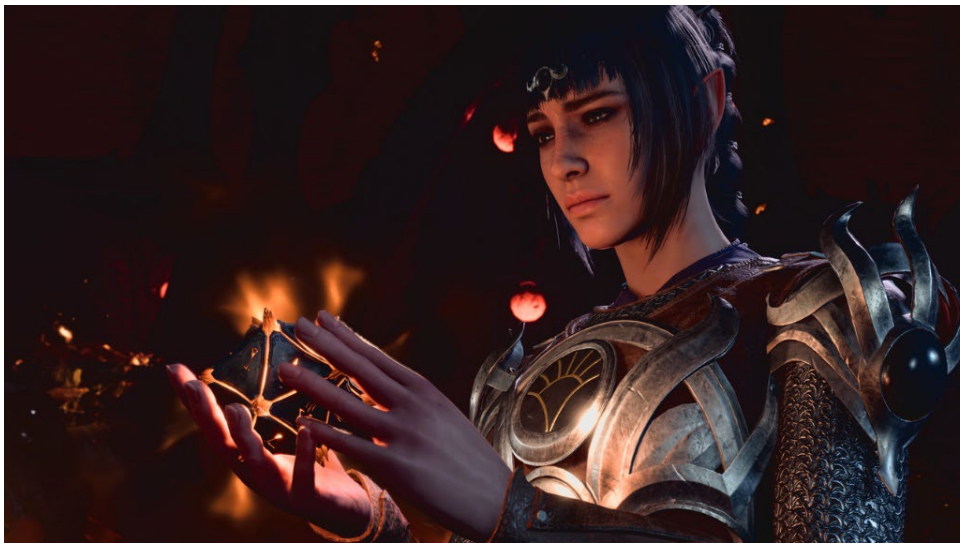
Background choices add another layer to immersion, providing roleplaying opportunities and skill bonuses. For instance, the "Soldier" background enhances Athletics and Intimidation while shaping the character's past. Visual customization options, such as premade face, hair, and body type selections, ensure that players create a character they can resonate with.

For those who prefer a predefined story, premade 'Origin' characters offer unique personal narratives. Ultimately, this extensive customization system strengthens PI, making characters feel like extensions of themselves and fostering a deeper emotional investment in the game's world and story.

It is evident that the create a character section of BG3 taps into the players psychology, as through the customization option players are able to express themselves by psychologically identifying with their characters class and backstory; whilst also allowing players to self-project their personalities on to their character, whilst compensating for features they lack.

As previously mentioned, BG3 is a party-based game where players can choose up to 3 NPCs to join them on their adventure. These NPCs have their own unique storylines, personalities and classes. Players can swap out NPCs for other characters they may come across within the gameworld. By allowing players to rely on these characters through combat and narrative choices, a bond of companionship can be made, especially when players proceed with certain NPC storylines, as narrative choices can affect how the NPCs perceive the player. Some choices can lead to romantic encounters, whilst others may cause NPCs to leave your part permanently. These types of bonds can help promote empathy from the player by having them care for what the game NPCs think about them.

An example of this can be seen with the NPC companion Shadowheart:



(Figure 10: NPC Companion, Shadowheart screenshot[81]).

Shadowheart in BG3 is a prime example of how an NPC's combat role, storyline, and personality shape the player's sense of companionship and emotional connection. As a Cleric of Shar, she plays a crucial role in combat, often serving as the party's main healer and support. This reliance on her abilities can create a sense of dependence, reinforcing her importance beyond just her narrative arc.

Initially, Shadowheart is secretive and distrustful, but as players earn her trust, Shadowheart's backstory unfolds, revealing that she was taken as a child and indoctrinated into Shar's faith. Throughout the game, players influence her decisions, guiding her toward embracing her past and the goddess Selûne or deepening her devotion to Shar. These choices affect her personality and alter her demeanor and even her in-game appearance, making her one of the most dynamic companions in the game.

Shadowheart's transformation is key to the player's EE. Her guarded and sarcastic personality gradually gives way to vulnerability, trust, and even deep affection, depending on the choices made. If romanced, she becomes one of the most emotionally complex love interests, offering moments of both tenderness and darkness. Her evolving storyline fosters a sense of responsibility in players, as their actions shape her fate. Whether players help her break free from her past or encourage her unwavering devotion, the impact of their choices strengthens the emotional bond, making Shadowheart a truly compelling companion whose journey feels deeply personal.

Narrative plays a significant role in BG3, as the game features three different endings based on the player's choices throughout the game. These choices can lead to up to 17,000 different permutations of the endings[82]. The vast number of narrative choices allows the player to fully express their character, and in true D&D fashion, players essentially design their own character and narrative based on their choices within the game. This provides players with an immense sense of agency.

When a game with strong mechanics offers such a high level of creative freedom through CD and narrative, it becomes nearly impossible for players not to feel immersed and emotionally engaged within the gaming experience.

3.2 Video Game: God of War (2018) – Linear Character Design & Narrative

(Figure 11: God of War key cover artwork[83]).

GOW winner of *The Game Awards 2018*, Game of the Year, Best Narrative, Best Performance, and Best Art Direction[84], is a story-rich, single-player, action-adventure game set within the world of Norse mythology.

GoW masterfully blends CD and narrative to create an immersive and emotionally engaging experience. The hyper-realistic character models, detailed facial animations, and motion-capture performances make Kratos and Atreus feel lifelike, allowing players to connect with them on a deeper level. Kratos's redesign, featuring an aged, battle-worn appearance, visually

represents his transformation from the rage-fuelled Spartan of the past to a more introspective father. On the other hand, Atreus evolves visually and behaviourally throughout the game, mirroring his emotional growth. The game's enemy and creature designs, inspired by Norse mythology, further reinforce the authenticity of the world, making every encounter feel grounded and immersive.

Narratively, the game employs a single-shot camera technique, eliminating cuts to maintain an uninterrupted, intimate perspective. This approach strengthens the emotional weight of the relationship between Kratos and Atreus, which serves as the heart of the story. Their evolving bond, from distant and strained to one of mutual understanding, is developed organically through dialogue, quiet moments, and gameplay interactions. The overarching themes of grief, parenthood, and legacy are explored with subtlety, allowing players to engage with the story on a personal level.

(Figure 12: Screenshot of Kratos and Atreus during the Modi aftermath cutscene[85]).

This is illustrated in a scene where Atreus, emboldened by his newfound godhood, kills a weakened Modi despite Kratos' command to stop. Kratos warns him, "There are consequences to killing a god," but Atreus, filled with arrogance, repeatedly challenges him, asking, "How do you know?" Instead of sharing his own dark past (where he slaughtered nearly the entire Greek pantheon), Kratos delivers a cold, measured warning: "Watch your tone".

The single-shot camera technique amplifies the tension in this moment, keeping the player locked into Kratos's perspective without any cuts to interrupt the weight of his silence. The scene doesn't merely explore Atreus's defiance; it also emphasises Kratos's restraint. Despite

his history of unchecked violence, he refuses to allow Atreus to follow the same destructive path. His choice not to explain his past speaks volumes, reinforcing the game's themes of parenthood and the struggle to break cycles of destruction.

By allowing the narrative to unfold naturally within the single-shot framework, GOW ensures that every confrontation, lesson, and moment of growth between Kratos and Atreus is deeply felt. This makes their journey one of the most compelling father-son narratives in gaming. The game's immersive quality is further enhanced by its seamless integration of gameplay and narrative. As previously discussed, the game's director, Corey Barlog, mentioned how he used the "Play Triangle", in which the game's narrative (father & son), exploration and combat would all influence Kratos's character growth.

"The game was about either narrative, combat or exploration, and everyone of those things fed into character development. So no matter what we were doing, everything had to help further the arcs of the characters, everything had to help you get into the mind of the characters"[83].

Kratos' reluctance to train Atreus is reflected in both their interactions and combat mechanics, where Atreus's AI improves as he learns and grows. This ludo-narrative harmony ensures that the story isn't just told but actively experienced by the player. By weaving together emotionally resonant storytelling, stunning CD, and deeply engaging gameplay, *GoW* creates an unforgettable journey that keeps players fully immersed from beginning to end.

As GoW is a linear story, the game relies heavily on strong CD and narrative to engage players emotionally and immerse them in Kratos' journey.

4.0 Methodology

This study employs a mixed-methods approach, combining qualitative and quantitative data collection to assess the impact of CD and CN on PI and EE.

4.1 Survey on Dissertation Topic: Player Perspectives

(Figure 13: Header banner of survey on dissertation topic).

A survey has been created to gather data on players' views regarding CD and CD, and their impact on immersion and EE.

The survey, created using Google Forms, will collect qualitative and quantitative data from 31 participants aged 18 and older with extensive video game experience. It features multiple-choice, Likert scale, checkbox, and yes-or-no questions.

The analysis will explore patterns and contradictions between the literature and participant responses, shedding light on the influence of CD and CN on PI and EE. While 31 participants is a modest sample size, their diversity in age, gender, and preferences will help identify relevant trends.

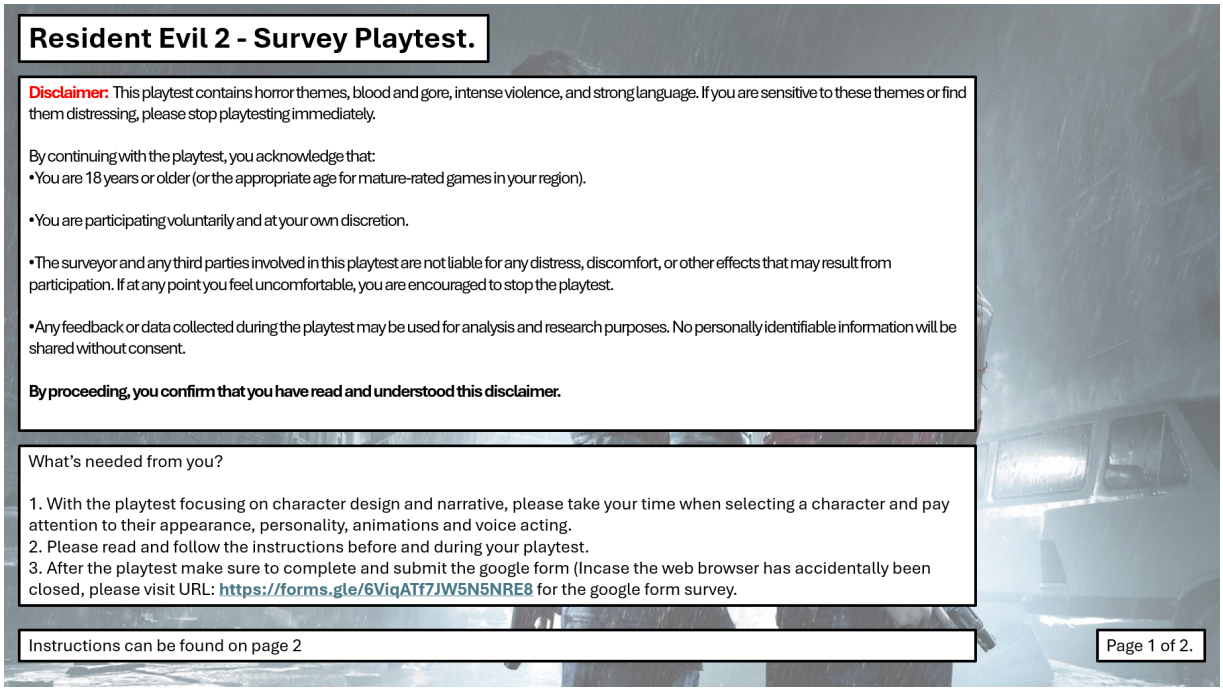
4.2 Resident Evil 2 Remake – Playtest and Questionnaire

(Figure 14: Participants of the Resident Evil 2 Remake playtest).

The Resident Evil franchise is a highly successful video game series known for its unique puzzle mechanics, iconic characters, and immersive narratives. Resident Evil 2 Remake[85] will be utilised for a playtest session and followed up with a survey to gather player feedback. The focus will be on evaluating aspects such as CD, CN, overall PI and EE.

Google Forms will be used to analyse qualitative and quantitative data from 23 participants on the computer games design course at the University of South Wales Trinity St. David. Due to its 18+ rating for horror themes and violence, participants will be informed of these elements before playing.

The survey will feature multiple choice, Likert scale, checkbox, and yes/no questions. Participants will play the introductory gas station level and watch cutscenes, initially choosing either Leon or Claire, with a requirement to complete a second playthrough as the alternate character. This brief segment introduces key characters and sets up the game's narrative.



Resident Evil 2 - Survey Playtest.

Disclaimer: This playtest contains horror themes, blood and gore, intense violence, and strong language. If you are sensitive to these themes or find them distressing, please stop playtesting immediately.

By continuing with the playtest, you acknowledge that:
•You are 18 years or older (or the appropriate age for mature-rated games in your region).

•You are participating voluntarily and at your own discretion.

•The surveyor and any third parties involved in this playtest are not liable for any distress, discomfort, or other effects that may result from participation. If at any point you feel uncomfortable, you are encouraged to stop the playtest.

•Any feedback or data collected during the playtest may be used for analysis and research purposes. No personally identifiable information will be shared without consent.

By proceeding, you confirm that you have read and understood this disclaimer.

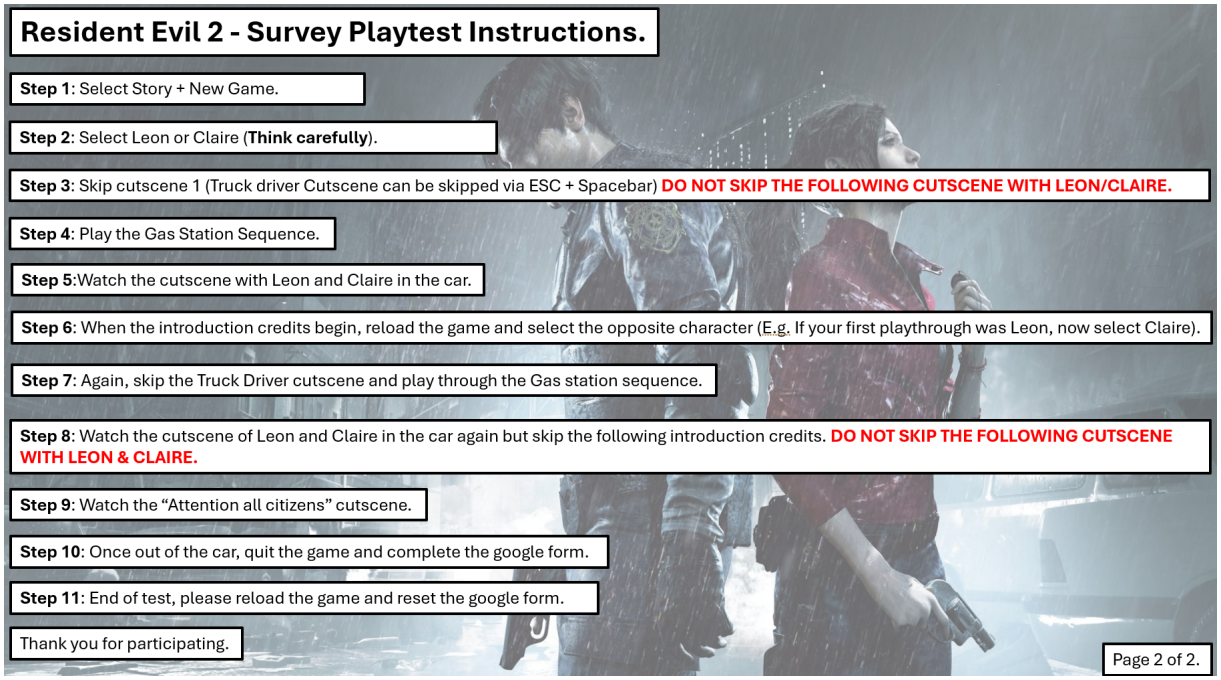
What's needed from you?

1. With the playtest focusing on character design and narrative, please take your time when selecting a character and pay attention to their appearance, personality, animations and voice acting.
2. Please read and follow the instructions before and during your playtest.
3. After the playtest make sure to complete and submit the google form (Incase the web browser has accidentally been closed, please visit URL: **https://forms.gle/6ViqATf7JW5N5NRE8** for the google form survey.

Instructions can be found on page 2

Page 1 of 2.

(Figure 15: Resident Evil 2 Remake playtest disclaimer).



Resident Evil 2 - Survey Playtest Instructions.

Step 1: Select Story + New Game.

Step 2: Select Leon or Claire (**Think carefully**).

Step 3: Skip cutscene 1 (Truck driver Cutscene can be skipped via ESC + Spacebar) **DO NOT SKIP THE FOLLOWING CUTSCENE WITH LEON/CLAIRE.**

Step 4: Play the Gas Station Sequence.

Step 5:Watch the cutscene with Leon and Claire in the car.

Step 6: When the introduction credits begin, reload the game and select the opposite character (E.g. If your first playthrough was Leon, now select Claire).

Step 7: Again, skip the Truck Driver cutscene and play through the Gas station sequence.

Step 8: Watch the cutscene of Leon and Claire in the car again but skip the following introduction credits. **DO NOT SKIP THE FOLLOWING CUTSCENE WITH LEON & CLAIRE.**

Step 9: Watch the "Attention all citizens" cutscene.

Step 10: Once out of the car, quit the game and complete the google form.

Step 11: End of test, please reload the game and reset the google form.

Thank you for participating.

Page 2 of 2.

(Figure 16: Resident Evil 2 Remake playtest instructions).

4.3 Aims and Objectives

• Analyse existing literature on player psychology, CD and CN in relation to PI and EE.

• Examine how CD and CN are implemented in critically acclaimed games through case studies of *GOW* and *BG3*.

• Gather and analyse qualitative and quantitative data from experienced players through a targeted survey.

• Conduct a playtest of RE2R and evaluate player responses to CD and CN elements.

• Compare and contrast player feedback with existing literature and findings from case studies to identify patterns, contradictions, and insights.

• Determine which aspects of CD and narrative influence PI and EE, and use this research to highlight these elements to guide and inspire more effective character-driven design in the video game industry.

SMART Objectives:

• Specific – Investigate how CD and CN affect PI and EE through a combination of academic research, case studies, surveys, and playtesting.

• Measurable – Collect and analyse data from at least 31 participants via an online survey relating to the dissertation topic and 23 participants through a controlled playtest session of RE2R followed by a second survey.

• Achievable – Use accessible tools such as Google Forms and a short game segment to gather feedback efficiently and within the project's time frame.

• Relevant – Focus on CD and CN, two core components in game development, aligning with current academic and industry interest in PI and EE.

• Time-bound – Complete all data collection, analysis, and writing within the academic deadlines of the 2024–2025 academic year.

5.0 Data Analysis

This section of the report analyses the participant survey's qualitative and quantitative data on the extent to which CD and CN affect PI and EE within video games. As well as the feedback from the RE2R playtest survey.

5.1 Survey on Dissertation Topic: Player Perspectives – Data Analysis

A survey was conducted to examine how CD and CN affect PI and EE in video games. The 55-question survey garnered 31 responses, including 26 males, 3 females, 1 non-binary, and 1 non-disclosed participant, aged 18 to 45. Data analysis will focus on responses that align with or contradict earlier research.

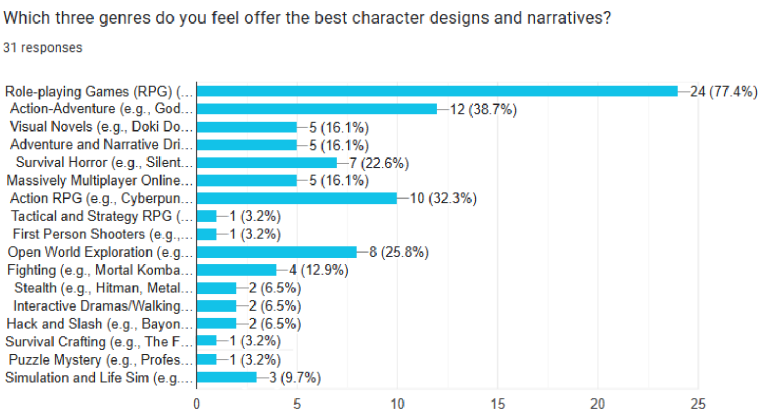
Gender	No. of Participants
Male	36
Female	3
Non-Binary	1
Other	0
Prefer not to say	1

Age Range (Years)	No. of Participants
Under 18	0
18-20	3
21-25	7
26-30	12
31-35	5
36-40	2
41-45	2
46-50	0
51-55	0
56-60	0
Over 60	0

(Figure 17: Tables of topic survey participants' demographic data).

While most participants are male, it could form bias towards certain questions. However, the demographic of data could correlate with the majority of game enthusiasts being male orientated within their 20s.

Participants ranked RPGs as the top genre for CD and narratives, followed by Action-Adventure and Action-RPGs.



(Figure 18: Survey response to "Which three genres do you feel offer the best character and narrative?").

Most participants preferred third-person (TP) camera perspectives in character-driven narratives because it allows them to see characters' expressions and movements, enhancing the sense of playing as the character. Some, however, noted that first-person (FP) perspectives can boost immersion, even if they feel intrusive.

Do you prefer first-person or third-person perspectives for character-driven stories? Why?

(E.g., First-person feels more immersive, whilst third-person allows for more character expression).

31 responses

Tough one, I have to say either one.

Third person; Allows you to really grasp what a character is experiencing through their facial animations, body language etc.

Third-person, though potentially not as immersive as first-person, allows you to see your own character as you play

Third person, personal preference for gameplay and storytelling

I think it depends on the style of the game

Third person
Because I can see more of the character that way.

Third person for the character expression

Third Person

I have no preference, depends on the style of game and how its implemented

Third person, first person feels too much like you're inserting yourself into the story as opposed to third person where you're playing as the character

Either or I have no preference

Third person. Because you feel like you're watching the character instead of being the character

Third-Person, If story driven by character; need to see visually, to add context aesthetics etc. My favorite games mostly platformers probably because of the 3rd person perspective.

First person, puts you in the game more

First person due to the feel of actually playing the game

First person

Third person as it allows you to get to know the character more and see their expressions and movements.

Third person, as I can see who I am in the game world. This does not detract from the idea that the character is me - the 'out of body' perspective doesn't create a disconnect. I see myself in the game world and prefer that to a first person perspective in narrative driven experiences.

Neither, my preference depends on the gameplay not the story

I do like them both

Third person, I find seeing the character in a scene more cinematic.

Third person, I like to see my character

Third person as you get to see the full character and all their body movements etc.

Third person, seeing character in world makes it more immersive for me

First person is better for building a connection with other NPCs while third person is better for relating with the player character because you can see their movements, not a strong opinion though.

First person - you see through the characters eyes. You see what they see/don't see, can make conversation dialogue more personal.

3 third person

Third person - shows the whole character including facial expressions

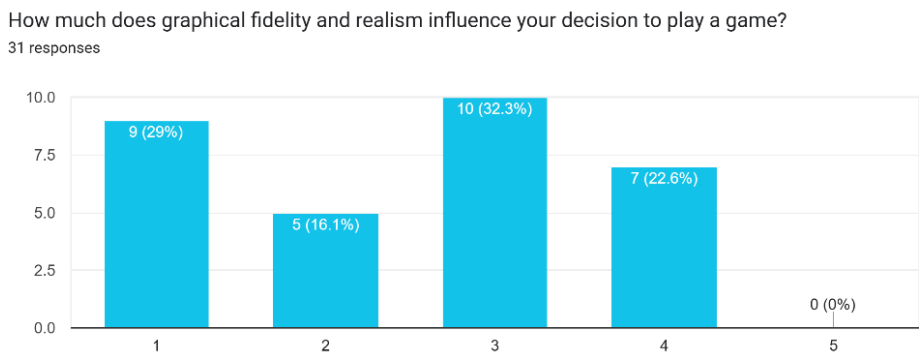
First person, more immersive

First

Third person

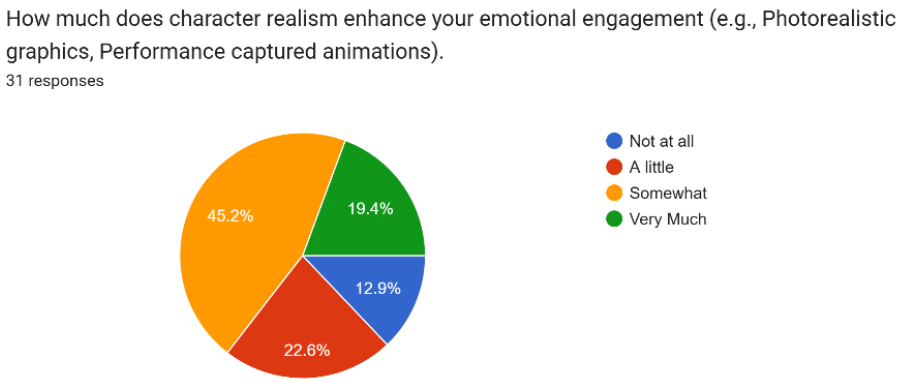
(Figure 19: Survey response to “Do you prefer first person or third person perspectives for character driven stories? Why?”).

Participants had mixed feelings about high graphical fidelity and realism affecting their decision to play a game, suggesting realism might not be very important to players.



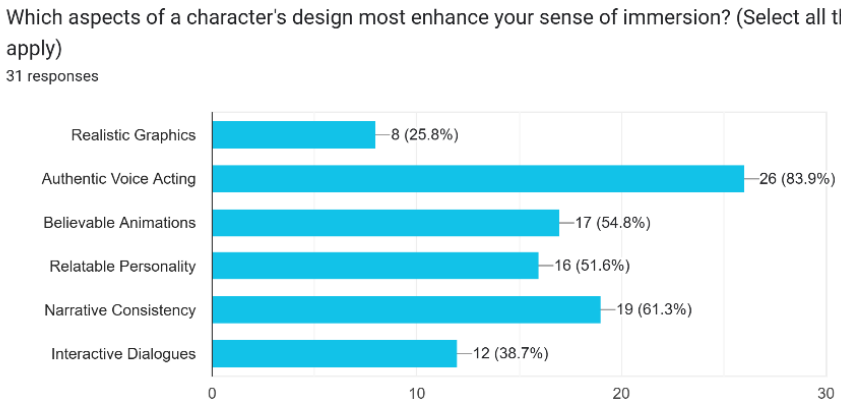
(Figure 20: Survey response to "How much does graphical fidelity and realism influence you decision to play a game?").

Despite the above, two-thirds of participants agreed that character realism somewhat or greatly enhanced their EE, highlighting its importance in CD.



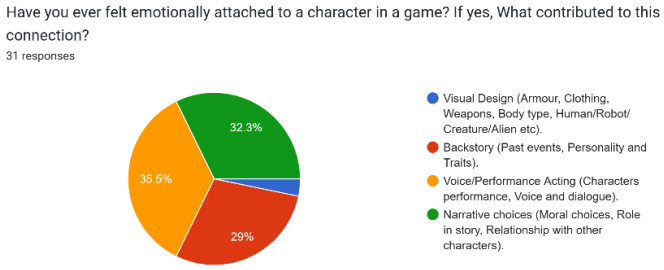
(Figure 21: Survey response to "How much does character realism enhance your emotional engagement?").

However, realistic graphics ranked lowest in immersion compared to voice acting, animations, and narrative, which significantly enhanced the experience.



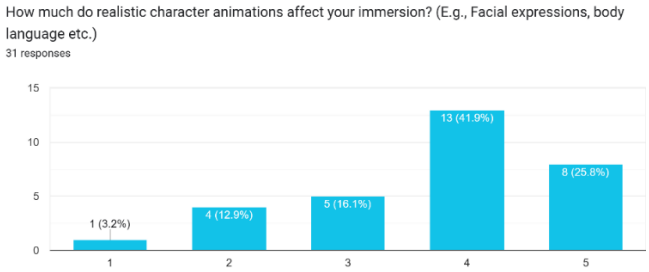
(Figure 22: Survey response to "Which aspects of a character's design most enhance your sense of immersion?").

Similarly, when asked what created an emotional connection with a video game character, participants mainly highlighted Voice/performance acting, Narrative choices, and Backstory, while visual design received just 1 vote.



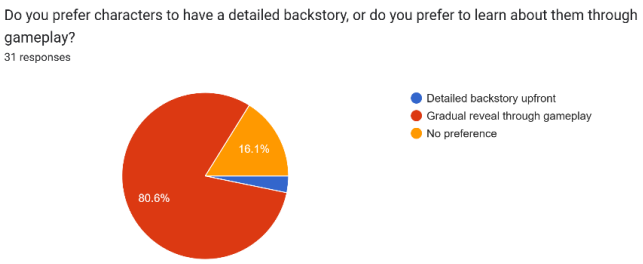
(Figure 23: Survey response to "Have you ever felt emotionally attached to a character in a game? If yes, what contributed to this connection?).

Voice and performance acting significantly enhance PI and EE, with similar effects observed from realistic character animations in video games, according to participant feedback.



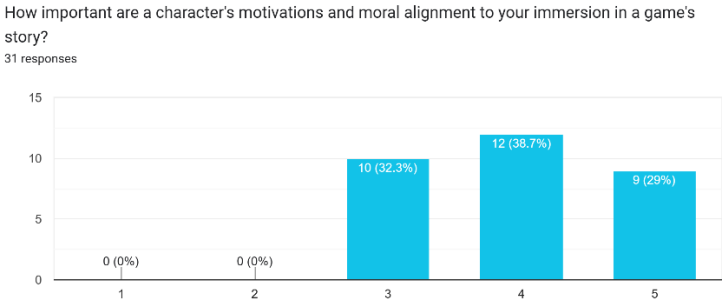
(Figure 24: Survey response to "How much do realistic character animations affect your immersion?").

The following questions explore narrative elements that influence PI and EE, such as the preference for discovering a character's backstory through gameplay instead of receiving it upfront.



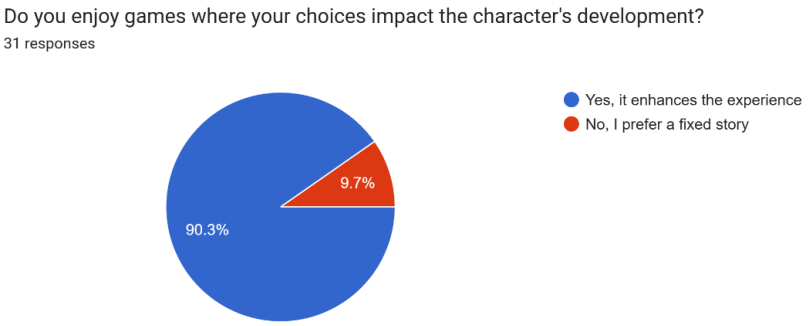
(Figure 25: Survey response to "Do you prefer characters to have a detailed back story, or do you prefer to learn about them through gameplay?").

A characters motivations and moral alignment within a game's story showed importance to the players immersion.



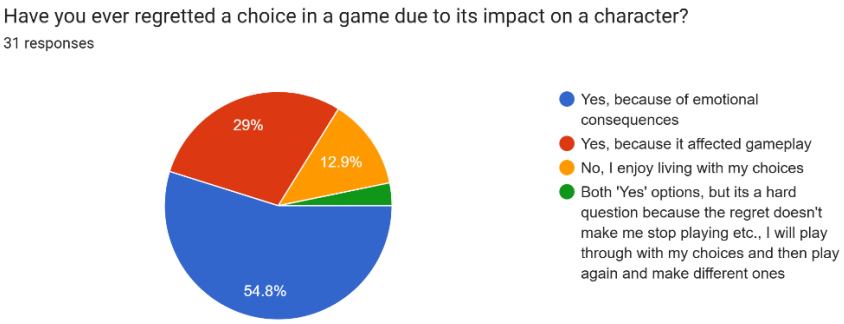
(Figure 26: Survey response to "How important are a character's motivations and moral alignment to your immersion in a game's story?").

A majority of participants also said that narrative choices that impact the character's development enhanced the experience.



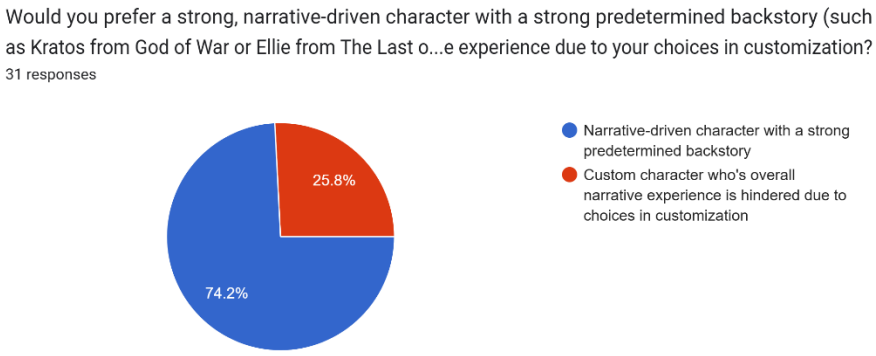
(Figure 27: Survey response to "Do you enjoy games where your choices impact the character's development?").

However, due to emotional consequences, 17 participants said they regretted a choice in a game due to its impact on a character.



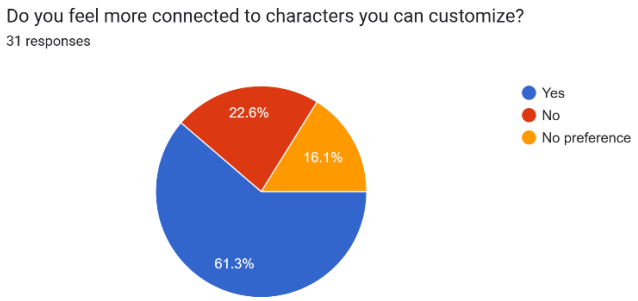
(Figure 28: Survey response to "Have you ever regretted a choice in a game due to it's impact on a character?").

Participants appreciate games with multiple endings and impactful choices but generally prefer fixed narrative-driven characters, like Kratos from GoW, over custom characters that can detract from the story experience.



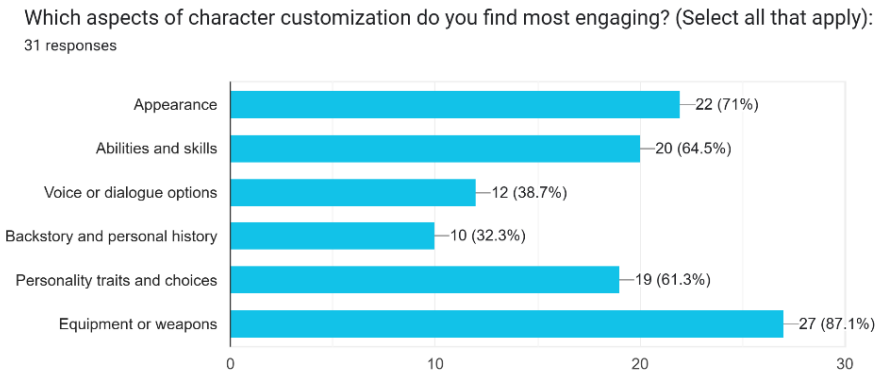
(Figure 29: Survey response to "Would you prefer a strong, narrative-driven character with a strong predetermined, or would you rather have a customized character, even if that might affect the overall narrative experience due to your choices in customization?").

Custom characters can enhance PI and EE, as most participants felt more connected to customizable characters.



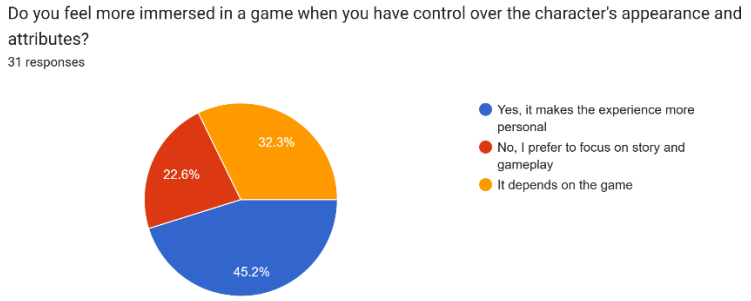
(Figure 30: Survey response to "Do you feel more connected to characters you can customise?").

With the most engaging elements of customization being equipment/weapons, appearance, abilities/skills and personality/choices.



(Figure 31: Survey response to "Which aspects of character customization do you find most engaging?").

But when it comes to PI, having control over the character's appearance and attributes garnered mixed responses.



(Figure 32: Survey response to "Do you feel more immersed in a game when you have control over the character's appearance and attributes?").

A key aspect of character customization is appearance. When asked about engaging aesthetic elements, participants ranked clothing design, facial features, and body type as the top three.

Elements	1. Most Engaging	2	3	4	5	6	7	8. Least Engaging
Clothing	17	8	6	X	X	X	X	X
Facial Features	3	4	5	4	4	3	3	5
Body Type	2	4	5	5	5	4	5	1
Colour Scheme	3	4	4	9	3	1	2	5
Accessories	3	5	4	5	4	4	2	3
Hair and Hairstyle	X	2	3	4	6	8	3	5
Body Markings	1	X	2	1	4	5	11	7
Body language	4	6	4	3	2	4	4	4

(Figure 33: Table representing survey response to "What elements of a character's appearance do you find most engaging?")

5.2 Resident Evil 2 Remake: Playtest and Questionnaire- Data Analysis

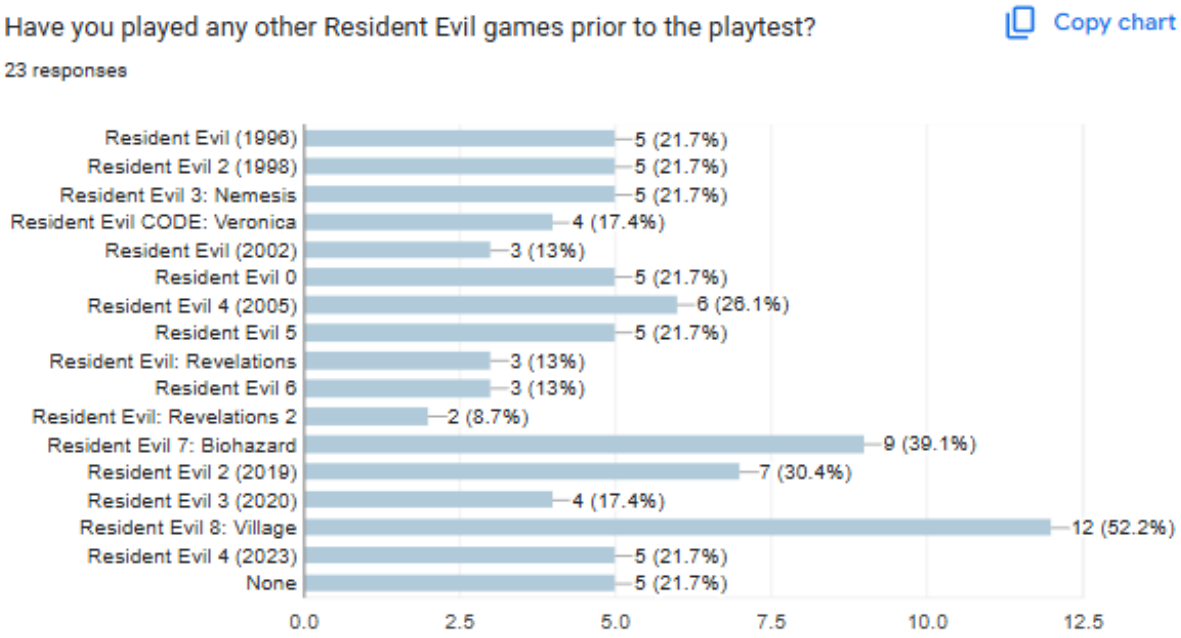
A playtest of Resident Evil 2 Remake (RE2R) was followed by a 35-question survey on CD and narrative's impact on PI and EE. The survey received 23 responses from games design students at the University of South Wales Trinity St. David, including 15 males, 5 females, 1 non-binary, and 2 who chose not to disclose their gender. The data will be analysed for patterns.

Gender	No. of Participants
Male	15
Female	5
Non-Binary	1
Other	0
Prefer not to say	2

Age Range (Years)	No. of Participants
18-24	15
25-30	4
31-35	2
36-40	1
41-45	1
46-50	0
Over 50	0

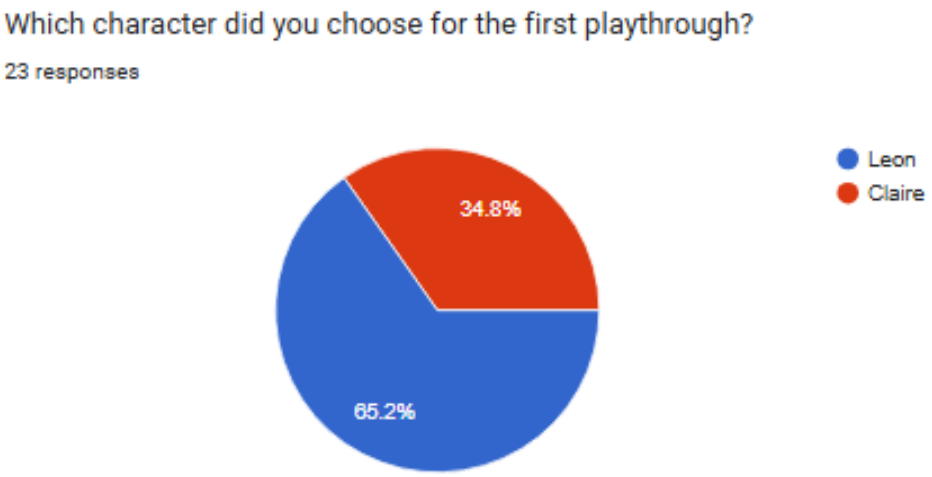
(Figure 34: Tables of Resident Evil 2 Remake playtest survey participants' demographic data).

The survey's first question gathered participants' prior experience with the Resident Evil franchise, allowing for filtering of responses from those who may have preferences for characters from other Resident Evil 2 titles, while focusing specifically on RE2R.



(Figure 35: Survey response to “Have you played any other Resident Evil games prior to the playtest?”).

When choosing to play as Leon or Claire for their first playthrough, 15 of the participants chose Leon, whilst 8 chose Claire.



(Figure 36: Survey response to “Which character did you choose for the first playthrough?”).

Character selection preferences included matching the character's gender to the player's, the relatability of the character's narrative, gameplay aspects, and appealing character aesthetics..

What influenced your decision in character choice?

23 responses

His name	Character's narrative description.	It was random
I play male characters generally	Im a long-term resi fan, so Leon is just an iconic choice for me. Im a big fan of his character through the franchise. However, if i was a new player who didnt know the lore, i would choose Claire as I am female and therefore resonate better with female characters.	when I first play game with one or the other character selection I like to go in the order of appearance
Unfamiliar with Claire as a character overall in comparison to Leon within the RE franchise.	Female character, helps me to imagine myself as the character	I like playing female character's usually but i enjoy the option of either game
Personal preference (Claire gets better weapons to use & the better secondary character IMO)	I knew of Leon prior to the game but less of Claire	Leon was my first playthrough when I played the original game
in my own time I'd played RE2 as Leon, so I was interested in seeing how Claire differed.	Thought he looked cool, also tend to choose male characters in games	I prefer Leon over Claire because I feel Leon is more interesting and relatable than Claire
Because he was the first option	Leon one of my favourite characters in games cos I see a lot of myself in him	i wanted to change scenario. Instead playing a male character i wanted to play a woman character
Originally I wanted to go with Leon, on account of being a famous character, however on reading the instructions, I assumed there would be further gameplay with the second choice of character. Thus, I chose Claire first. Admittedly though, I also chose Claire because I'm a girl - I find it easier to be immersed in a game when the character's gender matches my own.	Just first choice	it was the first story to choose
	I usually choose Male characters when given the choice as I can relate to them. Leon's narrative	Already knew the character thanks to playing Resident Evil 4

(Figure 37: Survey response to "What influenced your decision in character choice?").

The survey highlights the introduction of the first zombie enemy in a cutscene. Participants agreed that its design effectively conveys horror through gory visuals, realistic animations, and the depiction of threat, illustrated by the zombie attacking a policeman.

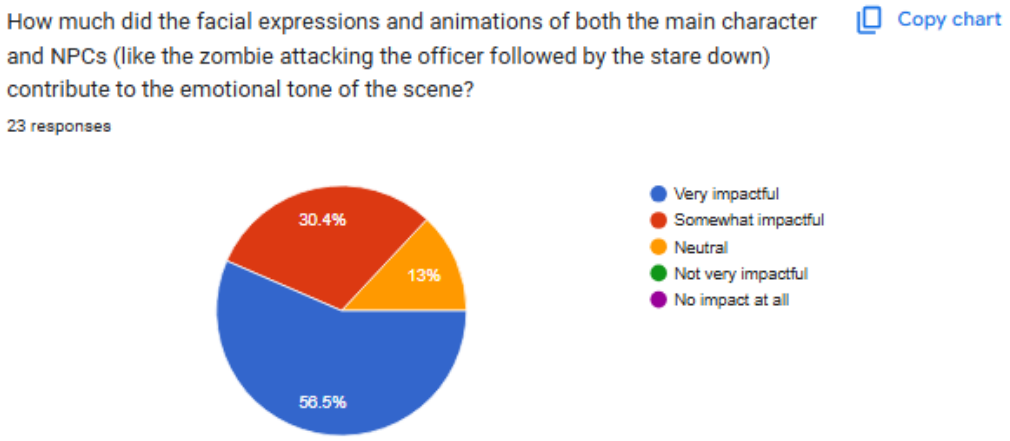
Did you find the zombie character designs effective in conveying a sense of threat or horror? Why or why not?

23 responses

Yes	Yes, with the use of gore and the subtle eye twitching, it did sell that they were a threat.	Yes, the zombies design is very threatening being covered in blood and its face having decaying features. Its eyes show no remorse in eating someone and has a menacing look.
yes it come across as very menacingly	for me personally i felt they were introduced a bit early as to get a sense of horror they'd need to be teased more in a scary way as showing the 'monster' fully early in the game can diminish a players long-term fear of it. I think there is a greater sense of horror and threat when Leon is in the police station later on in the game due to its build-up to events and atmosphere as opposed to the intro sequence	Yes when the zombie was eating that guy it definitely showed the threat of the zombie
Yes- The character design paired well with SFX and visual gore to emphasize the real threat of a zombie apocalypse.	Yes, they are bloodied and human-looking while still having that inhuman feel	From a design point they do look quite unsettling, looking like they just crawled out of a grave.
Yes absolutely, they are horrifying and the epitome of 'zombie', first proper appearance is of a zombie attacking and then eating a living person.	their animations reflected how I would expect a zombie to shamble around	yes
They were effective in conveying a sense of threat; the cloudy eyes, teeth bared, very animalistic and uncomfortable.	yes because it lingered on the fact it was ripping out the guy's throat. it felt like it was age until it finally looked up, suspense	The character design of the zombie was really good including the perfect amount of blood and the right skin tone to look like a zombie
yes, the state of the zombies were effective as they showed that this situation was a threat and unrecoverable.	Yes i think the introduction to the zombie in the gas station and the kind of slow reveal of how it looks lends to making you feel horror and a sense of dread	Absolutely, the character design conveys depictions of both horror and threat.
Yes - the dull, lifeless colours of the skin contrasted sharply with the fresh blood and prominent teeth convey a striking image - it's very easy to imagine a potential future where we, the player character, are the	yes very good scary	yes, the coldness of their actions and the way the move in hordes
	Yes, although it may be a bit hard to see for some, the design invokes a sense of horror through the missing jaw, whited out eyes, and generally all the blood on the character, the torn clothes also help to identify the idea that this zombie was previously human, which can also help to give a sense of threat/horror	yes

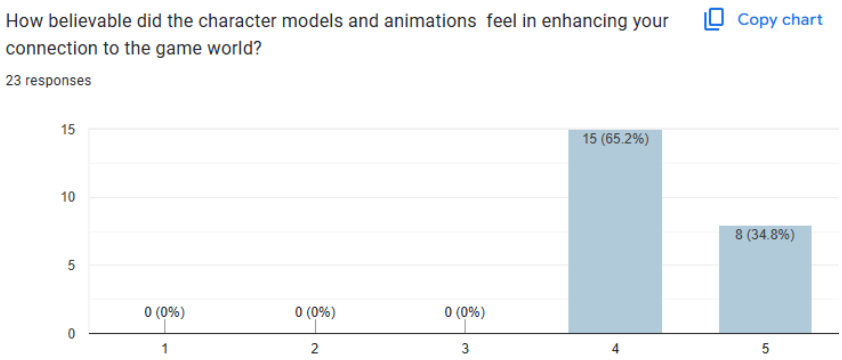
(Figure 38: Survey response to "Did you find the zombie character designs effective in conveying a sense of threat or horror?").

Performance capture animations were added to RE2R. Out of 23 participants, 20 felt these animations enhanced the emotional tone of the scene.



(Figure 39: Survey response to "How much did the facial expressions and animations of both the main character and NPCs contribute to the emotional tone of the scene?").

The significance of the performance capture animations was further supported when participants rated them 4 out of 5 on a Likert scale, indicating that the animations and character models enhanced their connection to the game world.

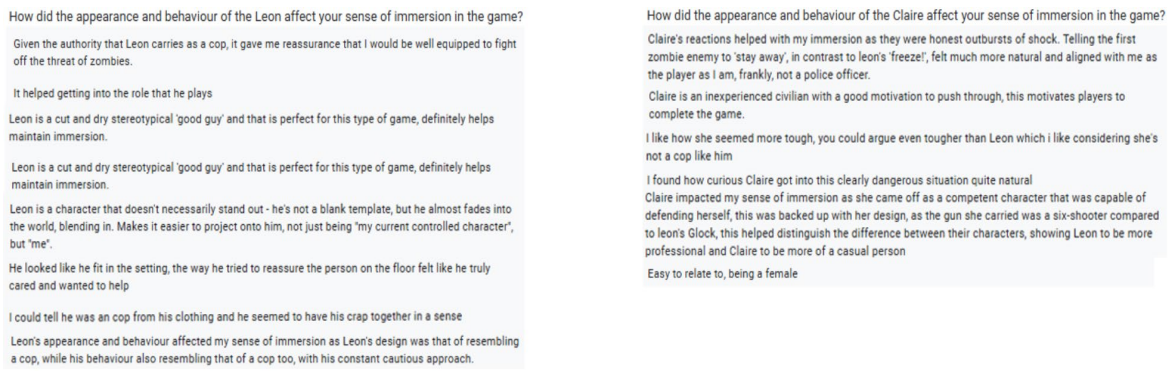


(Figure 40: Survey response to "How believable did the character models and animations feel in enhancing your connection to the game world?").

Players connected more with Leon's CD than Claire's, though both received positive feedback. The results might be biased due to the majority of male participants, where gender could affect their connection with Claire.

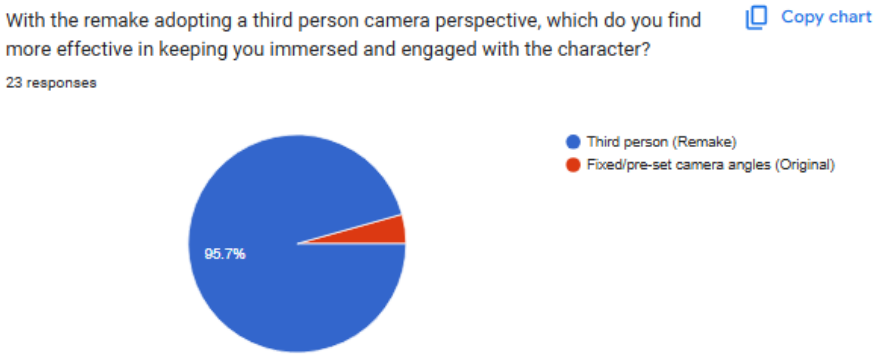
(Figure 41: Survey response comparison of Leon and Claire's character design affecting player-character connection).

The characters' appearances and behaviors enhanced PI, aligning their personalities with their aesthetics. For instance, Leon, a police officer, carries a Glock pistol, while civilian Claire wields a six-shooter revolver. Although they share similar gameplay paths, their narratives set them apart. Some players appreciated Leon's straightforward good-guy persona, while others found Claire's more relatable and empathetic as she searches for her brother amid the horror of Raccoon City.



(Figure 42: Survey response examples of how Leon/Claire's appearance and behaviour affected participants' sense of immersion).

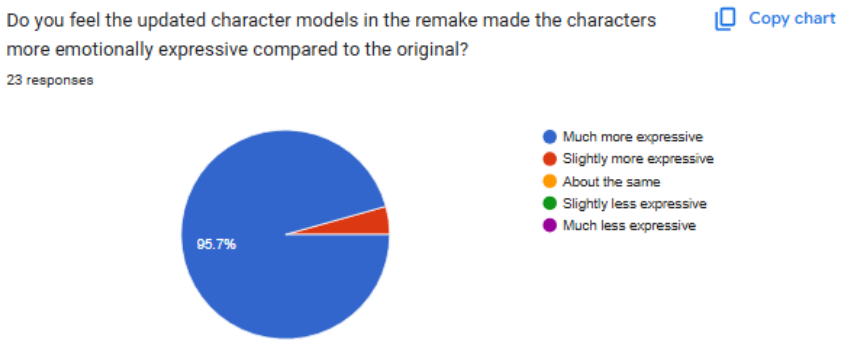
The survey compared the original Resident Evil 2 (RE2) with its remake (RE2R). Of the 23 participants, 22 found the third-person camera in RE2R more immersive and engaging than the fixed cameras of the original.



(Figure 43: Survey response to "With the remake adopting a third-person camera perspective, which do you find more effective in keeping you immersed and engaged with the character?").

(Figure 44: Camera comparison of the Resident Evil 2 vs. Resident Evil 2 Remake).

22 of the 23 participants found the updated character models to be more emotionally expressive compared to the original.



(Figure 45: Survey response to "Do you feel the updated character models in the remake made the characters more emotionally expressive compared to the original?").

Participants noted that higher graphical fidelity enhanced realism, allowing them to observe finer details like facial expressions, which helped in understanding characters' emotions. The third-person camera perspective also fostered a deeper connection, as players could react alongside the characters in shared situations, unlike the original version which created a sense of disconnection. Additionally, performance acting animations and updated models in the remake offer a more immersive experience, enriching the overall gameplay.

6.0 Findings and Conclusion

The research conducted for this dissertation aimed to explore how CD and CN influence PI and EE in video games. Through an analysis of literature, participant surveys, playtests, and case studies of popular video games such as BG3, GOW, and RE2R, several key insights were uncovered regarding the psychological connection between players and in-game characters.

The findings suggest that a game's genre plays a role in shaping players' EE with characters. RPGs, in particular, offer unique opportunities for players to immerse themselves in the game's story by controlling their character's appearance and making impactful narrative decisions. For example, BG3 exemplifies this approach, allowing players' choices to significantly influence character development, thus fostering a deeper sense of self-projection and agency. Participants favoured games that allowed for personalised narrative shaping; however, it was noted that this agency could occasionally disrupt immersion if players regretted their choices. Despite this, the majority of participants expressed a preference for narrative-driven characters with strong predetermined backstories, as seen in GOW. This suggests that psychological identification with a character, rather than customisation options, is a stronger determinant of immersion.

Additionally, the ability to emotionally connect with a character is heavily influenced by the character's narrative and the actor's performance behind them. While traditional animations and high-fidelity graphics enhance immersion, they are insufficient for fostering a meaningful emotional connection. Instead, a compelling narrative and strong performance captures are essential for encouraging players to invest emotionally in a character. Insights from the book *Game Anim: Video Game Animations Explained*[?] matched performance capture pioneer Andy Serkis's underscore that advancements in performance capture allow for more authentic portrayals of characters' emotions, creating a stronger bond between players and characters. This was reflected in the RE2R playtests, where participants noted that the combination of enhanced graphical fidelity and performance-captured animations facilitated more detailed facial expressions, making it easier to interpret a character's emotional state.

The narrative structure also emerged as a crucial factor in EE. Participants preferred characters whose motivations were gradually revealed through gameplay rather than those whose backstory was entirely presented upfront. This approach, highlighted in Barlog's 'Play Triangle,' is demonstrated in GOW, which allows for organic character growth across a three-act structure. Players can witness character development and relate to their journeys. This concept was also noted with the character Claire in the RE2R playtest; participants found her more

emotionally relatable, especially when her narrative was introduced early in the game, clarifying her motives and personality right from the beginning.

In addition to narrative and performance, the design of a character's appearance plays a significant role in attracting players to the game. As previously mentioned, customisation options were found to be engaging, as players enjoyed creating characters aligned with their personal preferences regarding aesthetics. However, while a character's appearance serves as a visual hook, it is the depth of their narrative that truly captivates players and immerses them in the game world. This aligns with findings from previous studies indicating that CD is most effective when paired with a strong narrative and emotional storytelling.

Finally, the gender of the player was noted to influence character selection in RE2R. Female participants tended to gravitate towards playing as Claire, while male participants preferred Leon. This suggests that gender can serve as a means of self-projection, enhancing immersion by allowing players to relate to characters personally. Additionally, the design and animation of enemies, such as the zombies in RE2R, were crucial in setting the game's tone. The unsettling appearances, movements and terrifying growls of the zombies, along with their narrative role as predators, effectively conveyed the game's horror elements, immersing players in an atmosphere of dread and fear.

In conclusion, the findings of this dissertation confirm that well-designed characters with strong narratives and compelling character development significantly influence PI and EE. While aspects of CD and CN may overlap in their importance to the overall experience, it is the psychological factors that create a connection between the player and the characters that are ultimately most significant.

7. Summary

The aim of this dissertation was to explore how CD and CN affect PI and EE within video games. The research delves into player psychology, examining the ways in which players connect with characters, and the various elements that influence immersion and emotional involvement. The study emphasizes the importance of well-executed character and narrative design in enhancing these connections. Through comprehensive analysis of case studies, surveys, and hands-on playtesting, identifiable patterns emerged, establishing a strong foundation for understanding the relationship between CD, narrative, and player engagement.

The case studies focused on two critically acclaimed titles, *GOW* and *BG3*. Despite their significant differences, both games have received numerous accolades, including multiple Game of the Year awards, for their narrative depth, performance, art, and overall player experience. These games exemplify how various aspects of player psychology, including narrative structure and CD, are effectively utilized to immerse players and foster emotional connections with the characters and game world. *GOW*'s predetermined, narrative-driven characters and *BG3*'s customization and choice-driven paths provided distinct yet equally powerful examples of how CD and narrative can influence EE.

To further support the research, a survey was conducted to investigate how CD and narrative impact PI and EE. The results aligned with the case study findings, indicating that a strong narrative and character development significantly enhance players' emotional connections. In addition, a hands-on playtest of the *RE2R* was conducted, where participants played the introduction level as both playable characters. This exercise reaffirmed the research conclusions, showing that different aspects of player psychology—including the ability to psychologically identify with characters—are key factors in fostering immersion and EE.

In conclusion, this dissertation provides valuable insights into the ways CD and narrative shape PI and EE in video games. The research highlights that a strong narrative combined with well-crafted CD are fundamental to creating emotionally engaging and immersive experiences for players. The findings suggest that developers should prioritize these elements to create games that foster meaningful connections with players. Future research could further explore how different narrative structures and player choices across various genres influence EE and immersion.

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