

# **An exploratory study into implicit fear mechanisms in video games; how do they engage, immerse and affect the player's enjoyment of *Amnesia: The Dark Descent*?**

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## **Abstract**

As a means of informing future game level design, this study was intended to explore the theory that the use of implicit fear heightens immersion and enjoyment of a game. Interviews were carried out with participants that had played *Amnesia: The Dark Descent*, asking them whether they found the game scary, immersive and enjoyable, and what caused this. Results showed that both sound and lighting had significant impact on player immersion, with sound being the most influential. Additionally, player-avatar identification and utilisation of pre-existing schema were found to have possible effects on immersion and enjoyment.

The results of this study conclude that the relationship between fear, and immersion and enjoyment of a game is not necessarily causal in one direction. Immersion through other game mechanisms may result in the eliciting of fear from a player as much as fear may result in immersion in a game.

**Keywords:** Fear, Implicit, Immersion, Emotion, Games, Schema

## I. Introduction

The oldest and strongest emotion of mankind is fear... (*H.P. Lovecraft*)

Fear is one of the most basic of human responses; a primordial reaction designed to increase the survival capability of the species by providing a "vital response to physical and emotional danger" (Psychology Today, n.d). Because of the deep rooted nature of fear, it is one of the most heavily utilised emotions that all media calls upon – it is something all people can relate to.

The popularity of the horror genre of video games can be highlighted by looking at games such as *Resident Evil* (Capcom, 1996), which reached worldwide sales of 5.05 million units (VGChartz, 2010). The *Silent Hill* franchise (Konami) and *Fatal Frame* franchise (Tecmo) have also been widely commercially successful and there have been a number of independent games released in recent years aimed at this lucrative market such as *Penumbra* (Frictional Games, 2007), *Amnesia: The Dark Descent* (Frictional Games, 2010), *Hydrophobia* (Dark Energy Digital, 2010) and *The Path* (Tale of Tales, 2009) all of which received highly positive critical responses.

These games have an attraction to a particular type of gamer; this attraction most likely stems from the physiological arousal caused to the body by fear. The body secretes a high dosage of adrenaline when in a 'fear' state, giving "a ... rush that is as addicting as any drug" (Koltz, 2004). It is this rush that is sought by, for example, extreme sports enthusiasts and what makes them continue to take part in their activities, despite the inherent risk involved. This effect can be caused by any other type of stimulus that elicits a similar response.

However, 'fear' in and of itself is far too broad a category for what is a complex brain function. There are many different types of fear; paranoia, anxiety, terror, horror, panic, shock and dread. Each provokes a subtly different psychological (and in turn, physiological) response from the body.

There is a vast amount of literature that discusses fear in games that concludes there to be a far greater impact from implicit psychological terror than explicit visceral shock. This study aims to explore the range of 'fear' responses as they are presented in *Amnesia: The Dark Descent* to investigate what mechanisms or events players cite as being most scary, engaging and immersive. Will the implicit techniques be considered 'scary' or 'immersive', or will they elicit a different emotive response compared to explicit techniques? Are there particular circumstantial factors that have caused this, or is it just down to personal preference to types of scare? Importantly, what impact do these reactions have on the player's overarching sense of *enjoyment* of the game and how could this information be utilised by designers in future?

## II. Methodology

### i. Hypotheses

To clarify the hypotheses of this study; the null hypothesis states that there is no correlational relationship between implicit fear, and player immersion and enjoyment, while the alternative hypothesis states that there is a correlational relationship between them.

### ii. Variables

This study uses a *non-experimental* design using data from the real world and thus, the *independent variable* (Implicit Fear) cannot be directly manipulated by the researcher. The *dependent variable* is the participant's measure of their immersion in or enjoyment of the game. The environment in which the participants played the game could be a *confounding variable* however this has been controlled by ensuring all participants played outside of an experimental environment giving them as natural an experience as possible.

### iii. Design

This study utilised a correlational design, looking for a relationship between the independent and dependent variables.

Emotional responses are difficult to measure directly with any degree of accuracy, as is user engagement with a subject or an activity. The physiological response to a stimulus can be observed, however any significance must then be inferred from the data. This is highly unreliable, as many emotions cause identical physiological responses – intense fear and intense joy both raise the heart rate, for example.

This study acquired data from participants that had previously played *Amnesia: The Dark Descent* in their own time, at their own house. This made the data acquired highly ecologically valid as the experience the player had was natural; it was not part of a laboratory experiment. The data was gathered using semi-structured interviews conducted in the two weeks following their playing of the game. This meant that participants had the opportunity to reflect on their experience of the game – a possible advantage in helping them identify key aspects, but also a possible problem as some information may have been forgotten during the time since they had played.

Data was analysed through a process of content analysis, a method falling under the wider term of an 'interpretive phenomenological analysis framework'. This is a structure of research aimed at exploring "personal experience... and an individual's personal perception or account of an object or event" (Smith, 2008, p.53). Participant interviews were analysed to find common themes and the frequency with which particular descriptive terms were used by participants when describing their experience of the game.

#### **iv. Research Apparatus and Participants**

There were 3 participants in this study, all of which were students studying at the University of Portsmouth. They were acquired on a volunteer basis from a class that had recently played the game as an assignment, thus making the sampling method employed self-selected sampling. The average participant age was 21.6, with a standard deviation of 1.15. All were experienced gamers. Whilst this is not representative of the wider population, it is representative of the demographic the results of this study will have most relevance to.

The apparatus required for the study was a question sheet to conduct the interviews (Appendix I) with, a cassette recorder with in-built microphone and cassette tapes to record the data to for later transcription.

#### **v. Procedure**

Each participant was briefed initially before the interview. This brief informed them that the study was a game mechanism and player response study but did not reveal the particular focus of the study to be fear, as this may have affected how participants structured their answers to questions. Participants were lastly asked to sign a consent form.

The interviews lasted for approximately twenty minutes, allowing an opportunity to gain deep qualitative data relating to the participant's sense of enjoyment as well as their immersion in and engagement with the game. These interviews were recorded to cassette and transcribed and coded for the purposes of accurate analysis. Each participant was fully debriefed after the interview and informed of the details and specific aim of the study. Any further questions were then answered and permission to use participant data confirmed.

A condition of using students from a particular class was that in turn, the research would be presented back to that class so as they could see how a live research process worked. This presentation was carried out following the analysis of the data once preliminary results had been collected.

### **III. Results**

The interview transcripts were analysed using the coding framework shown in *Appendix II*. This framework makes it possible to define the key topics that participants have talked about. The frequency with which they are referred to similarly helps identify those that have had the biggest impact on the participants.

#### **i. Overall Emotive Response to the Game**

The emotive response to the game as a whole was heavily weighted towards describers such as "Disturbing", "Paranoia", "Suspenseful", "Disorientating" and "Unsettling"; there were 23 references of this type of fear.

When asked to describe their experience of the game in one word, participants used "Trepidation", "Twitchy" and "Dark".

One participant stated that the first 30 minutes of the game made them feel very "comfortable" and "secure" which then heightened the impact of the first encounter with an enemy threat.

## **ii. Effectiveness of Game Mechanisms and Design Aspects for Eliciting Fear**

Sounds, and specifically off-screen sound effects, were most frequently cited as heightening levels of fear. There were 7 explicit references to events in which sound played a key role.

The second most cited aspect of the game with regard to eliciting fear was specific game play mechanisms, such as collapsing masonry or having to constantly hunt for tinder to light rooms.

After sound, the game's use of light and shadow was heavily referenced, with 6 explicit events being cited by participants where they played a key role.

2 participants talked about identifying with the avatar and the situation in which he is placed in the game. These participants cited this as increasing their level of fear significantly.

2 participants also referred to the difference between *Amnesia: The Dark Descent* and other mainstream games as causing or increasing their level of fear both before the game started and also during game play.

## **iii. Immersion Enhancers and Immersion Breakers**

Only 1 participant cited an event which broke their immersion in the game. This was a puzzle that the participant stated was cliché and exposed the game mechanics too clearly to the player.

2 participants stated playing with the lights off and headphones on significantly increased their immersion in the game world.

Alongside its effectiveness at creating fear, the game's use of sound was cited as being one of its most immersive qualities also.

One participant stated that their main drive for continuing to play the game and invest in its world was the need to discover the mysteries that the narrative provides. They stated that they wanted to discover who or what was trying to kill the avatar.

2 participants explicitly stated that the feeling of fear and of being 'on-edge' heightened their engagement and sense of immersion in the game world.

## **iv. Fear and Level of Game Enjoyment**

2 participants stated that they enjoyed the game citing its originality and fearful atmosphere as primary reasons.

The participant that did not enjoy the game however, also cited the game's atmosphere as the primary reason. This participant admitted the game was very successful at inducing fear in the player but stated that they did not enjoy this feeling when playing games.

## **IV. Discussion**

The results suggest that there is a link between implicit fear and game enjoyment and immersion. The participants have all felt immersed in the game, 2 have enjoyed it and 1 has not, all citing fear as the reason; fear which they have described using implicit terminology.

Broadly, these results can be considered to support literature that suggests implied fear is far more intense than explicit fear, such as Rouse (n.d, cited in Perron, 2009) who writes "In Horror, the way the audience fills in the blanks will be far more disturbing than anything the writer can come up with". One particular participant response highlights this, stating "it comes down to like a paranoia, 'cos you just end up scaring yourself in some parts". There are numerous participant references to similar descriptors, and references to these emotions make up the most heavily spoken about topic during participant interviews. The frequency of topic of conversation, in conjunction with the knowledge that participants enjoyed the game, suggests that the alternative hypothesis can be supported and that there is a relationship between implicit fear, immersion and enjoyment.

The finding that participants cite light and shadow as well as sound effects similarly supports previous literature. For example, Pinchbeck (n.d, cited in Perron, 2009) writes that "Darkness limits our perception, creating space for tension and doubt to flourish". This doubt is what generates the implicit fear in a player – not knowing what they will have to face as they progress.

The use of sound in *Amnesia: The Dark Descent* supports the view of previous literature, however it does so in a subtly different way. Whalen (n.d, cited by Roux-Girard, n.d, in Perron, 2009) states, "silence...puts the player on edge...increasing the expectation that danger will soon appear. The appearance of the danger is, therefore, heightened in intensity by way of its sudden intrusion into silence". In *Amnesia: The Dark Descent* however, there is very rarely silence. The game uses sound effects to heighten the implied fear it elicits. Participant responses support this, such as "the footsteps, they were getting fucking loud...It was just like someone running towards you". The majority of these sound effects are not caused by in-game agents, and are solely intended to disorientate and unsettle the player. Sound is often viewed as being one of, if not the most effective design tool when evoking fear in a player – however, as concluded by Garner et al. (2010), "It could be posited that ... the experience of fear is ... a complex matrix of interacting variables." This suggestion is supported by the range of differing aspects of the game that were cited by participants in this study.

Avatar identification or empathy is a key mechanic for making players invest themselves in a game which in turn leads to a more immersive experience. *Amnesia: The Dark Descent* achieves this by giving the player the same amount of information as the avatar. One participant points this out saying that, at the beginning of the game "literally you just appear in a room", and later stating that "they're trying to like, make you more aware and like trying to like, get you to think as the character would". Games will often create a level of dramatic irony, with players learning information that their avatar/s do not know through, for example, cut scenes. In *Amnesia: The Dark Descent* however, the player never has control taken away from them, with all story-telling taking place through incidental cut scenes or flashbacks during which the player is always able to control their avatar.

This constant control was also identified by a participant as a factor in heightening both immersion and fear, stating "you're in control...so when you go forward you've got a bit more consequence". This participant also stated that "I felt immersed... but I didn't like the feeling; if it was a film, where I don't have to be right up next to it...", suggesting that the constant immersion without being able to detach oneself from the game play creates a level of psychological stress or anxiety. Some players enjoy this and thrive on it whilst others, such as this participant, prefer to relax while playing.

There is an example of the type of player that thrives on fear in this study, who states that "I like trying to get immersed...trying to get scared by something...you know generally a horror game for me, I will measure how good it is by how many times it makes me jump". It is interesting to note that both of these participants, who had wholly opposite levels of enjoyment of the game, both stated that the reason they either liked or disliked it was because it was so successful at creating a scary environment.

A key piece of information drawn from this study that level designers would be able to make use of is based in *schema* theory. A schema is "an active organisation of past reactions, or of past experiences, which must always be supposed to be operating in any well-adapted organismic response" (Bartlett, 1932 cited by Hayes, 1998); applied to games and players, this suggests that experienced players will generate their own schemas for different types of game as they learn a game's rules. This is very similar to the 'game play gestalt' as proposed by Lindley (2002, p.4-5). If a game does not fit in to one of these predetermined schemas, this may cause a level of uneasiness or anxiety until the player can learn the game enough to understand how it works and what to expect from it.

This is suggested through the responses of all 3 participants, as they all to a greater or lesser extent compared their experience of playing *Amnesia: The Dark Descent* to their experience of playing other games. It is also possible to see one participant attempting to utilise stored schema and apply them to this game. *Amnesia: The Dark Descent* does not offer the player any means of attacking enemies, yet one participant stated that "I found it, as a comfort thing, to hold a broom in front of me...I've got something between me and whatever comes at me. I've got a weapon I can defend myself with."

Despite the game purposely depriving the player of weapons, this shows that this participant was utilising a schema associated with more traditional First-Person-Shooter games in order to minimise their fear of the enemy threat.

With regard to the method used in this study, it proved to be successful in obtaining the data required however the time gap between the participants playing the game and giving interviews could have been a factor in some information being forgotten. It would likely have provided more detailed data conducting the interviews on the following day after participants had played rather than one to two weeks later. The size of the study cohort was relatively small; however the purpose of this study was not to obtain large amounts of quantitative data. Given the quality of data collected however, increasing the size of the cohort may not necessarily have proved beneficial given the time taken to analyse additional interview transcripts.

## V. Conclusion

While this study certainly supports the theory that implicit fear heightens immersion and enjoyment of a game, there are some considerations that may also play a fundamental part. The relationship between fear, immersion and enjoyment is not necessarily one way. Given the number of references to other game mechanisms by participants, such as player-avatar identification and having constant control of the character throughout, and the impact these had on *immersion* rather than *fear* may well suggest that fear is actually a product of immersion via other means and not vice-versa. This is an angle that may be beneficial to study further in future work.

Additionally, player personality and prior gaming experience (stored in schemas) will always have a level of influence over their gaming experience. By designing mechanisms and environments that provide a new perspective on an old formula, or by creating whole new ideas that do not easily fit into other generic 'pigeon-holes', designers can attempt to not only elicit fear from players, but engage and immerse them across a variety of other games also.

## VI. Bibliography

Capcom (1996). Resident Evil. [DISC] PlayStation. Osaka: Capcom.

Dark Energy Digital (2010). *Hydrophobia*. [Digital Download] Xbox Live Arcade for Xbox 360. Reading: Microsoft Game Studios.

Frictional Games (2007). *Penumbra*. [DISC] PC. Stockholm: Paradox Interactive.

Frictional Games (2010). *Amnesia: The Dark Descent*. [Digital Download] PC. Washington: Valve Corporation.

McNamara (ed.) (2007, October). The top 10 scariest moments in gaming. *Game Informer*, 147, 36.

Garner, T, Grimshaw, M. & Abdel Nabi, D. (2010) *A preliminary experiment to assess the fear value of preselected sound parameters in a survival horror game*. Games Computing and Creative Technologies: Conference Papers (Peer-Reviewed). Paper 14. Retrieved January 8, 2011 from [http://digitalcommons.bolton.ac.uk/gcct\\_conferencepr/14](http://digitalcommons.bolton.ac.uk/gcct_conferencepr/14).

Hayes, N. (1998). *Foundations of Psychology – An Introductory Text, Second Edition*. London: Routledge

Knez, I. & Niedenthal, S. (2008) Lighting in Digital Game Worlds: Effects on Affect and Play Performance [Electronic Version]. *Cyberpsychology and Behaviour*, 11 (2), 127-139.

Koltz, K.L. (2004) *Fear Not*. Retrieved October 11, 2010 from [http://www.suite101.com/article.cfm/spirituality\\_health/111916](http://www.suite101.com/article.cfm/spirituality_health/111916)

Konami (1999 – 2009) *Silent Hill Series*. [MULTIPLE FORMATS] Multiple Platforms. Multiple Publishers.

Lindley, C.A. *The Gameplay Gestalt, Narrative, and Interactive Storytelling*. Published in the proceedings of *Computer Games and Digital Cultures Conference*, Tampere: Tampere University Press (2006), pp. 203-216

Méliès, G. (Director). (1896). *Le Manoir du Diable* [Motion picture]. France: Star Films

Perron, B. (ed.) (2009) *Horror Video Games: essays on the fusion of fear and play*. North Carolina: McFarland

Psychology Today, (n.d). *Fear*. Retrieved November 9, 2010, from <http://www.psychologytoday.com/basics/fear>

Riezler, K. (1944). The Social Psychology of Fear. *The American Journal of Sociology*, 49 (6), 489-498.

Smith, J.A & Osborn, M. (2008). Interpretive Phenomenological Analysis, In J. Smith (Ed.), *Qualitative Psychology: A practical guide to research methods* (pp. 53-80). London: Sage Publications Ltd.

Tale of Tales (2009). *The Path*. [Digital Download] PC. Belgium: Tale of Tales.

Tecmo (2002 – 2008) *Fatal Frame Series*. [MULTIPLE FORMATS] Multiple Platforms. Multiple Publishers.

VGChartz (2010). *gamrReview – Browse Games*. Retrieved October 9, 2010, from <http://gamrreview.vgchartz.com/browse.php?name=resident+evil>

## Appendix I – Interview Question Scheme

- 1. What were your initial impressions of the game during the first few minutes?**
  
- 2. Did you find the game scary at any point?**
  - a. If so, what aspects in particular stood out? Were their specific events, was it the atmosphere, or something else?
  
  - b. If not, why not? What was it that made you at ease or comfortable?
  
- 3. Were there any sections which made you 'jump'?**
  - a. If so, would you say that was 'scary' or not? If not, would you say there were attempts to make you jump that failed? Why?
  
- 4. How would you describe the atmosphere the game creates? Do you think it is effective? Why?**
  
- 5. Did you enjoy the game? Did you feel immersed in its world? Why?**
  
- 6. If you could use one word to sum up your experience of the game, what would that be?**
  
- 7. Would it be the sort of game you would usually consider buying?**

## Appendix II – Transcript Coding Framework

- **Eliciting an Emotional Response**
  - Fearful Emotions
  - Confusion / Disorientation
  - Shock / Surprise
  - Disturbing / Unsettling
  - Other Emotions
- **Citing a Specific Emotion**
  - Like / Dislike
  - Fearful Emotions
  - Confusion / Disorientation
  - Shock / Surprise
  - Disturbing / Unsettling
  - Other Emotions
- **Immersive Qualities of the Game**
  - It is Immersive
  - Immersion Enhancers
  - Immersion Breakers
- **'Scariness' of the Game**
  - It Was Scary
  - Absence of threat / suspense
  - Appearance of threat
- **Identification with Avatar**
  - Player Mindset
  - Player Requirements
  - Inventory Management
- **Being on edge or relaxed**
  - Causes
  - Impact
- **Game Mechanisms**
  - Impact on Fear Levels
  - Successful
  - Unsuccessful
- **Impact of Light and Shadow**
  - Emotive
  - Gameplay
- **Impact of Sound and Music**
  - Emotive
  - Gameplay
- **Player Defence Mechanisms**
  - Physical / Virtual
  - Psychological
- **Comparison to other Games or Media**
- **Is it a Game the Participant Would Buy?**
- **Reason for Liking this/type of game**
  - Fan of Genre
  - Likes Being Scared
  - Immersive
- **One-Word Descriptions**

## Appendix III – Raw Interview Transcripts

### Participant A

#### Interview Transcript

- Interviewer: What were your initial impressions of the game during the first five minutes or so?
- Participant: Erm (.) a little bit creepy, err (.) it didn't help that the character's name is Daniel which kind of added to the immersion but yeah (.) it was pretty immersive – I felt ( ) it was uncomfortable ( ) yeah uncomfortable.
- Interviewer: Yes or no, initially (.) did you find the game scary at any point?
- Participant: Yeah.
- Interviewer: Were there any effects in particular that stood out? Were there specific events, was it the atmosphere, or was it something else?
- Participant: S o u n d. I'd sort of ( ) I'd hear something go (*\*participant makes a monster-like snarling noise\**) ( ) well what was that? Or something would collapse (.) I'd hear it in the background thinking w h a t ' s c a u s e d t h a t? >Like I caught a glimpse of one of the little creature-majigs through a door and I saw its foot and I just thought< WHEEE HELL↓Ooo↓ – ↑t h a t s↑ uncomfortable, erm...
- Interviewer: Do you think that sound would have been even more, err (0.4) scary if it had been in proper surround sound or //
- Participant: I'd imagine so yes 'cos you'd think that's ( ) (1.1) y e a h.
- Interviewer: Ok. (.) Were there any sections which made you physically jump?
- Participant: Physically jump? Yeah, things collapsing behind me >I though crap that's something attacking me oh<, ^no its not its some rocks falling over^.
- Interviewer: Would you say that (0.9) that was scary or just sort of (0.7) surprising?

- Participant: More just (.) not scary just sort of WHEY HE ↓ lloo ↓ wasn't expecting that (.) surprising (.) you know like when you accidentally bump into somebody yeah ( ) like, oh, that sort of scary.
- Interviewer: Did that (.) did it make you uncomfortable continuing on? (.) Did it add to the sort of uncomfortable feeling?
- Participant: I think I was just so uncomfortable anyway its (0.3) its not like I could just sit there with my feet up 'cos I was >sort of the edge of my seat thinking< (\*participant makes an apprehensive, indecisive grunting sound\*) \$what's gonna happen next\$ {spoken in a nervous, scared tone of voice}.
- Interviewer: Were there any attempts to scare you that you think failed, o r (.) anything you think the designers may have intended that didn't have the desired effect?
- Participant: Erm (.) there's a part where I have to pull out three books (.) to open a door. (1.1) I think they're intending me to get all >quick to the next book quick to the next book quick to the next book must go quickly< but I didn't, I just walked , pull the book walked to the next one pull the book walk to the next one. (.) They could have had a shorter time period for that to make you think crap gotta do this quickly. (1.3) It seemed like (.) it was a bit lazy at that point it's like I don't really ^need to (put that) much effort into this^.
- Interviewer: Errm (0.5) did that (0.6) did noticing that effect your (.) immersion or did you still feel that the world as a whole was (2.1)//
- Participant: Actually at that point I felt \$ohh ↓ typical gameplay mechanism ↓ ooh look I have to open the door\$ {spoken in a sarcastic tone}
- Interviewer: After that (.) how long did it take you to sort of get back into the (.) the feel of the //
- Participant: Well something went (\*partici^pant makes a ghostly monster sound\*) as I walked through the next door so (0.4) ^nappy moment^.

- Interviewer: How would you describe the overall atmosphere that the game creates? (.) Do you think it is effective and why?
- Participant: It's unpleasant (.) every time I went through a door I had this (.) sense of trepidation. Err, you might find it interesting that (0.3) for some reason I found it as a comfort thing to hold a broom in front of me so that if anything did come up to me I could go ((mimics a prodding action)) prod. (\*laughter\*) I DUNNO! HOLDING A Broom just made me I dunno just maybe it's that (.)> to have I've got something I've got something between< me and whatever comes at me. (0.4) Whatever however small it is (and) if I could find a rock that was nice ^I thought yeah^ (I can) I can lob that at his face. (.) (It probably) won't do anything but still I've got something I've got a weapon something I can defend myself with.
- Interviewer: That's interesting (.) erm (.)of what you played, did you enjoy the game? (.) W h y or why not?
- Participant: Yes 'cos in (.) it's (0.4) that old word immersion again it make it brings you into the game it's not just \$yeah walk through shoot generic enemy blah blah blah\$ {sarcastic tone} it's more (0.5) ↑^what's in h e r e^↑? that's dark what's in that corner? WHAT ^was that^ ↑ n o i s e ↑? (.) erm, it did make me want to carry on 'cos (.) I got the key to the wine cellar (.) a n d (0.4) (it just) (.) ^scared me^. Actually. Err, hmph, >hare to admit< 'cos it is quite a scary game (.) I mean (1.3) yeah (.) I, I dunno, it's not boring. (1.0) It's not the same old gratifying \$shoot a monster in the head ^blah blah blah blah^\$ {sarcastic tone} repeat repeat rep e a t you know repeat repeat rep e a t ( ) it was more (0.6) \$something's gonna happ e n\$ {nervous tone} ahh SUSPENSE it had suspense.
- Interviewer: Is that (.) the sort of game you would u s u ally buy? (0.4) O r r avoid? If you knew that was the sort of gameplay that it had in it?
- Participant: It's not a game I'd necessarily buy but I wouldn't avoid it either. (0.8) It's not my it's not m y particular genre but (.) I ↓wouldn't ↓say no to it.
- Interviewer: If you could use one word (.) to sum up your experience of the game what would it be?

- Participant: I wanna say nappies but I think we'll go with trepidation.
- Interviewer: Erm, that covers everything I had to ask (.) any other comments?
- Participant: Erm (1.1) I liked the fact that I had to root through draws to find things >and I was CONSTANTLY hunting ^for^ oil for my lamp< and I was constantly hunting for some tinder to light up these (.) lamps in the hallway and (.) yeah.
- Interviewer: Did having (0.5) did having those erm (0.6) did having things that gave you (.) light (.) in very short supply have a significant effect on (.) h o w tense you were?
- Participant: Yea 'cos I was constantly hunting for more >thinking oh if I use these up and I go into a dark area I'm gonna be< I NEED (.)to keep finding this stuff otherwise I'm screwed. (1.0) I felt like (1.1) I kind of n e e ded (.) them. I couldn't be without them ↑I needed at least ↑↑four in my inventory ↑to feel safe.(0.5) 'Cos' I know that >if I walk into a dark area I can light at least four lamps< and think pheww (.) this area's light (.) and if I'd run out of things I'd think yeah n o w what am I gonna do? (1.1) Erm (.) curiously (0.9) I felt erm >if I had if I'd been in a room already that I felt< oh that rooms safe I've already been in here (.) I didn't (.) feel (.) that if I went back to it it would still be safe. Just (.) if gave me the impression that there was something behind me. (0.4) (just) watching me (.) mocking me (.) (\*laughter\*) judging me. (3.4) The blue light thing was interesting as well it's got me guessing what the blue light is I'm guessing its some (.) demon, soul, gem or something.
- Interviewer: Was it is that the main reason you want to keep playing or is it (.) is it [just an enjoyable game]?
- Participant: [I wanna find out] (.) I wana find out what's trying to kill my ass.
- Interviewer: (\*Laughter\*) fair enough. (1.4) Ok I think that's everything.

## Participant B

### Interview Transcript

- Interviewer: What were your initial impressions of the game during the first five minutes or so?
- Participant: Erm (.) I liked it (0.4) I liked the atmosphere (.) that it sort of creates (.) erm (.) I (.) I mean I did have (.) a (.) a good idea (.) ^of what the game was like^ (.) before I started it. ^I deliberately tried not to watch like gameplay trailers and stuff like that^ (.) erm (2.1) I suppose I ( ) within the first five minutes it's just sort of (0.4) finding out what you can do and what you're restricted to (.) and and just sort of (.) wandering around a little bit aimlessly like ( ) lost.
- Interviewer: Did you find the game scary at any point? If so what in particular aspects stood out (.) was it specific events or something else?
- Participant: Erm (2.2) There have been (.) two specific events where I have (.) basically leapt out of my chair. (.) Erm (.) one was err (.) wandering around in the castle (0.3) ^sort of thing (.) where you're you're finding the chemicals^ (2.2) and e r r it was the actual first time that I saw ^any monster or^ anything. (.) 'Cos I'd ↑I'd started to get a little bit complacent↑ because I'd been walking around through all the rooms really carefully and eventually I was just like (.) ^there's^ nothing here (\*Laughter\*) and then err, I erm (0.6) I got back (.) you (.) you kind of backtrack into this large room (.) that you got blocked off from a rock fall or building or ( ). (.) I went back over t o o o investigate the gap that had been blocked up (0.6) a n d absolutely shat myself 'cos then the (.) behind me appeared the monster and sort of ahhhhh and sort of ran off round the corner and hid the cupboard for ten minutes (.) erm (0.4) and then the other significant time is the first ^water sequen- (.) sequence^ (.) when, when when you, you feel quite (.) quite calm (.) it's like ^oh this is nice (some water) (.) and and then you just see this (0.5) splashes in the water and then it kind of it just starts r u n n ing towards you and I (.) I actually kind of (.) kind of like c r i n ged up (0.4) defence mechanism and everything like >ahh gotta get out< (0.4) then it just kind of killed me (.) and that was the first time I actually died.
- Interviewer: Were there any sections that (0.5) might not have been scary but that made you jump? (2.0) Or would you consider that as just being scary?

Participant: Erm (4.0) ^I think there was (0.5) yeah (.) and it's basically it (.) it comes down to like a paranoia^ (.) 'cos you just end up scaring yourself in some parts (.) even when there's nothing there. (.) erm (.) think it might have been in (3.5) ^in like (.) going down^ into the basement?

Interviewer: Oh yea (.) the the storage area?

Participant: Yeah ^where you were getting the (.) like (.) chemicals^, where they were locked up (.) yeah erm (3.2) I mean (.) like (.) basically (.) moving at like (.) half a ( ) an hour so (\*laughter\*) (0.4) err and just (2.2) yeah I mean there's (.) no (.) there was no sections where I (.) I just randomly jumped (.) ^or anything like that ( ) because of a shadow or anything like that^ (.) Erm it only it only (.) it only creates (.) uneasiness ^sort of thing^ erm it was especially going down to basement 'cos it was dark and you start getting that (.) err (.) scratching noise and when when you're wearing headphones as weli it (.) it really gets into you head and it's like I (.) really need to get into some light. (\*laughter\*)

Interviewer: Erm were there any sections that (.) y o u (1.1) noticed that maybe the developers had (.) intended something that hadn't had the desired effect?

Participant: Errm (3.2) It's sort of hard to say (0.3) because (1.0) of the way it's laid out it's sort (.) ^it's the game was made to make you think things are gonna happen^ (.) erm (4.8) I mean I guess (2.9) with (.) going through the rooms in the castle (2.2) ^I was expecting something (1.1) to happen (0.8) and nothing did^ (.) 'cos there was like all these rooms all with like hiding places and stuff like that and just like ^something's gonna come round the corner (.) and^ and it never did erm (.) but I couldn't but (3.3) you know having played past that point I can see why 'cos it (.) it's gives you (.) it's a long kinda (.) sense of (1.0) comfort and (.) security 'cos it's (.) nothing appears when you think it will. (.) And then (.) all of a sudden it appears (.) once you've just started to feel (.) a little calmer (.) which I think (.) works (.) really well (.) erm (.) and sort of (2.2) helps it does it breaks away from the conventional design ^of games of things you can ( ) chuck or special effects in the first five minutes to get you hooked (.) rather than making the first (.) half an hour as empty as possible^ (.) So (.) erm (.) basically yeah.

Interviewer: Errm (.) how would you describe t h e overall atmosphere (.) that the game creates (.) a a n d do you think it is effective?

Participant: Erm (4.9) yeah it is it is basically the combination of (.) of the lighting and the sound effects and the randomness of some of the sound effects (.) and (.) err sometimes hearing (.) just an odd creak and (.) or like the scratchy noise 'cos that (.) 'cos it REALLY (.) makes you feel (.) uncomfortable. (.) Erm (.) just by the nature and pitch of the noise sort of thing. (.) Erm and so I think (.) that's (0.6) really effective err (0.7) and then as well the fact that it gets worse in the darkness and ^you only have a limited amount of tinder boxes so (.) you really have to think do I^ actually want to light this lamp or (.) or is it wasting my (.) my precious tinder? (0.4) Erm (.) and and that's sort of also (.) goes back to the very much survival horror (0.6) err (.) design (.) >with like the original Resident Evil where you had very limited ammo or< stuff like that so(0.6) errm (.) yeah I (.) I think the (.) atmosphere is (0.8) very successful 'cos (.) you know it's ( ) pretty successful it makes you (.) crap your pants. (\*Laughter\*)

Interviewer: Sort of similar to atmosphere (.) especially as you're playing with headphones e r r m (.) is the game (.) immersive?

Participant: Yeah yeah definitely.

Interviewer: Any point where anything as sort of (.) broken that sense of immersion?

Participant: Erm (3.5) not really (.) I mean I am like playing with the lights off and headphones on and (0.6) I generally I try and immerse myself as much as I can in a game anyway (.) err ^simply 'cos< (0.5) >by doing so it (.) tends to be a better experience and more the experience the developers intended^ (.) erm (3.8) I can't think of any point where it kind of (.) broke the immersion (.) not really.

Interviewer: Erm (.) i i f you could ↑use one word↑ (.) to sum up your experience (.) what would it be?

Participant: (\*Laughter\*) E r r m (3.9) twitchy.

Interviewer: Ooh that's interesting (.) (\*Laughter\*) (.) Errm (.) Any reason why? Or just (.) is that

how it sort of the combination of //

Participant: Combination of //

Interviewer: Gameplay and atmosphere makes you feel?

Participant: Yeah it it gets (.) gets you like (1.1) basically (.) giving you a sense of paranoia and (.) making you open every door VERY s l o w l y and (.) just (.) trying to peek through and (.) err (0.7) and then (.) just (.) ^was that something?^ close. (.) Err and (.) just so (.) err (0.4) and yeah it's (1.9) almost like a (1.1) twitch response sort of horror (.) ^if that makes sense?^

Interviewer: Sort of like the kind of response you would (.) expect in like (.) an arcade game?

Participant: Yeah it's (0.5) it's the same (.) kind of response just in a completely different context. (.) erm (0.6) and (.) I think it's (.) been successfully implemented with it.

Interviewer: Ok. (.) Errm lastly then (.) i i s (.) is that the sort of game that you would usually buy? Generally (.) or is it just (.) did you just play it 'cos you were interested in it?

Participant: Errm (.) Yeah it is the kind of game I would usually buy

Interviewer: Any reason in particular?

Participant: Erm (.) I mean I am I am a fan of sort of (.) horror survival horror sort of game so I kind of ( ) like the original Resident Evils before they ^got (.) commercialised (.) badly^ (\*Laughter\*) Err (.) the (.) Silent Hill games (.) ^Silent Hill 2 was one of my favourite ever games ( ) sort of thing^ and err (.) //

Interviewer: What is it that makes you enjoy playing them? That sort of game?

Participant: Erm (0.4) I like I like trying to get immersed probably (.) I like the immersion and (.) having (.) trying to (.) get (.) scared (.) by something err (.) you know generally a horror game (0.3) for me (.) err (.) I will measure how good it is by how many times it makes me jump (.) and that's why I'm really enjoying Amnesia because that's that's like (.)

basically ↑all that happens↑(\*Laughter\*) Erm (0.6) but it's also 'cos with Amnesia it's it's a different game so it's (.) it's quite refreshing 'cos it's (.) not (.) something I've played (.) >again and again and again before< you know it's not like another sequel to ^Silent Hill^ ↑or something like that↑erm (.) 'cos I I do like to (.) I will (.) generally look (.) for games that are (.) refreshing and different and (.) often (.) arcade games (.) erm (.) ( ) ^err (.) stuff like (.) Braid and^ (.) all these like (.) slightly random different games that err (.) that actually (.) like an artistic style to them (0.8) arguably more art games and (.) they often contain puzzles and and pretty visuals erm (.) and I will go for that sort of game ( ) (.) it sort of comes in the same (.) bracket 'cos it's (.) it's a (.) it's a game that takes some new things but does it differently and makes it all (.) feel very new ( ).

Interviewer: Ok, thanks.

## Participant C

### Interview Transcript

- Interviewer: What were your initial impressions of the game during the first five minutes or so?
- Participant: ( ) You didn't really see what was (.) 'cos literally you just appear (.) in a room (.) ^and you have to go down a hallway^ but erm (.) one thing that did ^sort of freak me out^ before even the game has started it just goes (.) yeah (.) use headphones (.) turn the lights off (0.5) so it is it's just from straight away from a game which is you know normally you'd play a game that's (.) they recommend you know (.) leaving lights on so you got good visibility (.) ( ) you know (.) doesn't fuck up your eyes (.) and (.) showing us kind of (.) >turn the lights off shut the curtains shut the door< (.) and get into this so straight away it's (.) from a game and it's more (translating) towards a film if you know what I mean?
- Interviewer: Oh I see (.) yeah (.) yeah.
- Participant: 'Cos a typical game is like literally (.) you know you're (.) just supposed to relax you're just supposed to go for it and just go through it (.) but this one is like (.) they're trying to (.) >when it comes to immersion 'cos that's the whole point of this they're trying to immerse you into it< (.) they r\_e\_a\_l\_l\_y go for it and they give you exact they tell you exactly what to do (0.4) ↑to get into it↑?
- Interviewer: Was that (.) was that sort of off putting or was it just a bit weird?
- Participant: Oh it was just a bit weird (.) I didn't like ^expect that^ (0.5) ^didn't^ 'cos when you play games you literally like (.) they don't tell you how to play it they just say (.) these are the rules (.) ^go for it^ they don't say (.) these are the optimal conditions for you to play (.) that's something you're supposed to find out on your own.
- Interviewer: Fair enough (0.6) Err in (.) in the bit that you played erm (.) did you find it scary (.) at any point?
- Participant: I wouldn't say scary but (.) it was a bit disturbing.

Interviewer: Disturbing not scary?

Participant: Not scary disturbing it was just like (.) it was (.) 'cos when (.) if you (.) >I didn't turn the lights off but even then (.) playing it with the lights on and without headphones on I could still sort of get into it and erm (.) when you're going through ( ) and there's (.)↑ sudden noises and stuff↑(.) and my speakers even (.) though they're shitty (.) and cheap (.) they're still pretty good so you sort of get the (.) random (.) click on this side ((gestures to left)) or something (.) and you know they just (.) like subtle little sound effects and stuff (.) like I was walking up towards a wall (0.4) and I could hear footsteps coming towards me and (.) it was just getting louder and louder so it was just you know one of those things where (1.2) they've really tried confusing you (.) so I (.) I know there's nothing round the corner but (.) >I wasn't a hundred per cent sure< so I wouldn't cro- I wouldn't cross that line I was just like (.) I know that (.) I mean ++NAME OMITTED FOR DATA PROTECTION++ (.) he was going to us erm (.) in the actual lecture (.) ^tutorial^ erm (.) yeah you probably won't see the monster for at least (.) you know after the first half an hour (0.4) so I was like oh ok but (.) even then (0.6) you know you you're a bit wary (.) and he's a liar 'cos I saw it in the first five minutes! (\*Laughter\*) Literally just r u n ning across the screen.

Interviewer: Errm (.) When you say it was dist u r bing (.) erm (.) was it just that sort of (.) element of trying to disorientate you or was there anything //?

Participant: No it was (.) it was just just (.) just the fact that they were trying to ( ) sorry am I allowed to swear?

Interviewer: Yeah yeah //

Participant: Trying to (.) Min- Mind-fuck you that's what they were trying to do. (.) They they were just trying to confuse you and you know just like (.) put you off? (.) And (.) I suppose that is (.) the beauty of a game I mean (.) they've succeeded in that. You know they're trying to like (.) confuse they're trying to like (.) make you more aware (.) and like trying to like (.) get you to think (.) as the character would.

Interviewer: So trying to like (.) put you in the mindset //?

Participant: Yeah yeah exactly. (.) I mean all that obviously you do know it's not real and stuff but it's juts where you're trying to play a survival game (.) so you (.) as the character you wanna survive (.) as the player you wanna be like I beat that game ↓ I survived ↓ (.) so it it it ↑ sort of works ↑.

Interviewer: Erm (1.1) Were there any sections that (.) made you (.) jump?

Participant: Yep (.) when that stupid monster ran across the fucking screen!

Interviewer: Wh- Why in particular?

Participant: Well like like I said where erm (.) ++NAME OMITTED FOR DATA PROTECTION++ said you're not going to see it for the first half an hour I r e a lly wasn't expecting to see it (0.8) the other thing was the footsteps (.) ^they were getting fucking loud^ (\*Laughter\*) 'cos they literally 'cos (.) most (.) I was (0.9) the reason I don't use headphones is 'cos I have the volume loud anyway. (.) And where it was just coming and coming it was just like (.) random (rattling) sounds at first and then it was just like (.) someone running towards you (0.7) so I was just like (.) I'm backing the fuck up and I'm going (.) I'm going back the way I came! (\*Laughter\*)

Interviewer: Erm would you say that there were any erm (.) attempts that you noticed in the game design that (.) maybe (.) failed to do what they were intending to do?

Participant: What they were intending to do was (.) disturb you >that's what I think they were trying to do and I think< (.) on the whole they succeeded 'cos (.) >I did not like I mean the first thing I told you the other day was< I frickin' hated this game! (.) Not because it was poorly built (.) because it did exactly what it was supposed to do. (0.6) When I play games (.) I don't wanna be (.) thinking I just wanna be (.) >you know able to play it ( )< and you know (.) any games ( ) is like strategy games they're the only ones I like ( ) it's ( ) it's hard to explain it's just like (1.7) they they set out (.) the game (.) to do the certain thing and they did it (.) perfectly. (.) I mean (.) ^what was it^ the screen (.) like going fuzzy and things like (.) making you go crazy when you're like (.) in darkness and stuff. (.) And they did that (.) the screen thing >I thought something was broken I was like what the fuck is going on the game's doing this stuff oh shit shit shit<

and I was like >get in some light oh it's ok now<. ( ) back in the the darkness ( ). (.)  
And so (.) I couldn't move out of one spot it was getting really frustrating so I was like  
searching for this little lighter to light these little candles. (.) Oh I suppose one thing  
they could have (.) well it didn't really make any sense (.) you couldn't pick up a  
candle //

Interviewer: That's a fair point yeah //

Participant: So that's probably one flaw I mean (.) to add to the realism you should have been able  
to pick up a candle (.) but (.) and (.) they could have got around that by making it if  
you (.) got that candle (.) chances are then the monsters would come and get you a lot  
quicker and then you (.) can't light it again until you get some more matches.

Interviewer: How would you describe the (.) atmosphere that the game creates?

Participant: Quite dark (.) it is a it is a really dark game (.) and I'm not talking about like (.) just the  
lighting I mean like (.) as in the actual mood. Like (.) they want you to be freaked out  
and (.) like I dunno (.) again back to (.) disturbing you (.) I mean they've created a  
perfect atmosphere for that. It's not (.) you can tell it's not the best graphics it's not  
the best model- modelling and everything (0.9) but (.) it DIDN'T NEED IT (.) 'cos it (.) it  
(.) you know (.) sound effects (.) you know like dark (.) haunting almost. Erm (.) yeah  
it's like (.) I I can't really describe it. (2.3) I'd say (.) I don't know (.) well like one word  
(.) dark.

Interviewer: Ok well that covers the next question (.) if you could sum up your experience in one  
word what would it be? (.) dark yeah?

Participant: Oh right (\*Laughter\*) yeah dark.

Interviewer: Erm (3.4) did you (.) err (.) did you enjoy the game (0.6) did you feel immersed? Why?

Participant: Right I felt immersed (1.1) 'cos (.) the whole point of my (.) task was to like (.) play the  
game and actually you know (.) >do what you were supposed to do<. (.) So I was there  
thinking ah alright I'm gonna play it properly I'm gonna do it (.) and I I went through it  
I played it a little bit (0.9) and I got immersed into it (.) but I didn't like the feeling (.) If  
if it was a film (.) where I don't have to be right up next to it and I can just (.) you

know //

Interviewer: Is it that (0.6) err not being able to sort of detach yourself from what was going on?

Participant: 'Cos you're in control (.) it's 'cos because you're in control so when you go forward you've (.) you've got a bit more consequence (.) whereas if you're watching a film (.) you can just watch it (.) and you can be like (.) you're an idiot go back! (.) Oh if it was me I'd be going back (.) but this time you're actually in (.) you're doing it. (1.6) That's a bad description but (.) //

Interviewer: No no I get what what you're saying sort of that (.) because it's your decision (.) you're responsible yeah?

Participant: Yeah.

Interviewer: I think I know the answer to this but (.) would would that be the sort of game that you would usually consider buying?

Participant: No 'cos when I play a game I wanna be (.) re-you-you know I wanna (.) I wanna be entertained I don't wanna be (.) if I want that I'll watch a horror film or something like that.

Interviewer: Because you feel (.) 'cos you can relax while you're doing it?

Participant: Yeah well yeah the whole point of like (.) it it depends if you like that kind of game and that's what your after like (.) if you're in that mood where you wanna be (.) you know you wanna be challe- I mean it is a challenging game (.) ^in the sense that^ you know you're in control completely (0.3) of this character and you have to (.) to try and survive and stuff (0.6) so you're a lot more (.) you're a lot more (.) self-conscious of your actions self conscious of your actions (.) whereas if I was playing for an example erm (.) Final Fantasy (.) if I die (.) I don't care (.) I'm just gonna go back and kill this monster again. (.) Whereas this monster is just going to kill you and that's it.

Interviewer: Ok thank you (.) that's everything/

## Appendix IV – Transcript Sample Showing Coding Framework Use

SPEAKER	TRANSCRIPT	CODING
Participant:	Erm (1.1) I liked the fact that I had to <u>root</u> through <u>draws</u> to find things >and I was CONSTANTLY hunting ^for^ <u>oil</u> for my lamp< and I was constantly hunting for some tinder to light up these (.) lamps in the hallway and (.) yeah.	Gameplay Mechanisms>Impact on Fear Levels
Interviewer:	Did having (0.5) did having those erm (0.6) did having things that gave you (.) <u>light</u> (.) in <u>very</u> short supply have a <u>significant</u> effect on (.) h o w tense you were?	
Participant:	Yea 'cos I was <u>constantly</u> hunting for more >thinking oh if I use these up and I go into a dark area I'm gonna be< I <u>NEED</u> (.)to keep finding this stuff otherwise I'm screwed. (1.0) I felt like (1.1) I kind of <u>n e e</u> ded (.) them. I couldn't be without them ↑I needed at least ↑↑ <u>four</u> in my inventory ↑to feel <u>safe</u> .(0.5) 'Cos' I know that >if I walk into a dark area I can <u>light</u> at least four lamps< and think pheww (.) this area's light (.) and if I'd run out of things I'd think yeah n o w what am I gonna do? (1.1) Erm (.) <u>curiously</u> (0.9) I felt erm >if I had if I'd been in a room already that I felt< oh that rooms <u>safe</u> I've already been in here (.) I didn't (.) feel (.) that if I went <u>back</u> to it it would <u>still</u> be safe. Just (.) if <u>gave</u> me the impression that there was something <u>behind</u> me. (0.4) (just) watching me (.) <u>mocking</u> me (.) (*laughter*) judging me. (3.4) The blue light thing was interesting as well it's got me <u>guessing</u> what the blue light is I'm guessing its some (.) demon, soul, gem or something.	Player Identification with Avatar>Mindset Game Mechanisms>Impact on Fear Levels Impact of Light and Shadow>Emotive Game Mechanisms>Impact on Fear Levels Emotional Response>Fear Response