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**Examining the role of soundscapes for player experience:**  
A Case Study of Darkwood

Faculty of Arts  
Department of Game Design  
Author(s): Sam Aziminejad & Alexander Agfemalm  
Group number: 41  
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Supervisor: Jacob Bull  
Examiner: Cecilia Rodéhn  
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## Abstract

This study is about audio design in horror games, by looking at the horror game *Darkwood*. Its goal is to answer the questions on how the soundscape of *Darkwood* affects player experience, what sounds *Darkwood* utilizes, and what emotional registers it evokes. This study's goal is to figure out the methods of horror soundscapes to be useful for following attempts at making horror-themed soundscapes by future game developers. The research was conducted by having five participants play the introductory section of *Darkwood*, the participants would be interviewed afterward with questions regarding the game and horror in general. The gathered data would be analyzed mainly by using the Two Factor Theory of Emotion by Schachter and Singer. The study found that the audio of *Darkwood* had an impact on the participants' experience, with players visibly growing uncomfortable by the tense ambiance, but it also discovered that visuals played a large part in it too, thus it recommends future experiments with greater scale and more precise tools for measuring emotional reactions derived from sound.

**Keywords:** Darkwood, emotion, fear, horror, sound, videogames

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## 1. Examining the role of soundscapes for player experience

The 2017 survival horror game *Darkwood* is set in a dark forest where the player is tasked to survive and find a way to escape. While the game is played out from a bird's eye view the player is never given more than their character's cone of vision to see their surroundings. Unable to at times see the monsters that assault them, the player often experiences the horror without direct visual stimulus. Yet the game is praised for its horrifying atmosphere, with large game journalism outlets like GameSpot giving it a 9/10 (Maher, 2019) while Destructoid gave it a 7.5/10 (Poreca, 2017), citing the atmosphere and audio as one of its greatest features. With this critical acclaim, it would be fair to say that the game has succeeded in its main goal of scaring the players as a horror game.

Many studies have been done on presentation and evoking tension, but it has mostly been in the space of music and visuals, not the aural aspects of soundscapes. The study was conducted to explore how the soundscape is experienced and how it affects the players' view of games. Therefore, the purpose of this study is to learn how soundscapes evoke feelings of tension and fear by studying a game many consider to have done this well: *Darkwood*. Which sounds affect the players? What emotional registers does it evoke? These questions will be answered through playtesting, semi-structured interviews (Given, 2008, pp. 811-812), and thematic analysis of the interview data (Delve & Limpaecher, 2020). The study aimed for a minimum of five tests with subjects across a period of three weeks. The tests consisted of a small playthrough of the game *Darkwood's* Prologue with data gathering afterward via interviews. The study was approached from the angle of Schachter and Singer's Two-Factor Theory of Emotion (Schachter & Singer, 1962) which works as a baseline for defining emotion itself. This study aims to see how the game influences people physically and emotionally and to understand the sounds *Darkwood* utilizes for inflicting these reactions.

This study was more of a pilot study ahead of a possible greater look into the subject. The scale of this study was one game with the entire process of writing being set over seven weeks, which is a realistic scale for the timeframe. Due to the small scope, there was a limited number of people that could be interviewed, and not all feelings could be explored. The study will only focus on one game and its introductory segment, *Darkwood* is a rather unpredictable game at times, but the introduction has many predetermined set pieces, making the test conditions easier to replicate. The study will also mostly focus on the game's ability to evoke fear in the player. Other affective responses in the data will not be hidden, but this study will mainly be looking for frightful responses.

This paper is divided into five chapters. Chapter 1 is the Introduction, and the current chapter, introducing *Darkwood* and the research questions. Chapter 2, the background, is where the paper goes over previous knowledge prior to this research from works by other people. Chapter 3 is Methodology which explains how the data was gathered and how it would be analyzed. Chapter 4 is Result and Discussion where the results of the tests and data-gathering are written down, analyzed, and discussed. Chapter 5 is the Conclusion, which will answer the research question and conclude what the results meant and what should be learned from this study. Chapter 6 is for the bibliography. Following that are the appendices, with various materials such as the interview sheet, codes, and notes on observed player behavior.

## 2. Background

Many horror games try to frighten the players by denying them the sight of the “monster” for most of the game’s runtime. This is used to build up the tension while also preventing the players from getting accustomed to the game’s horror aspect. *Darkwood* utilizes this as well with its limits on how much the player can see at once and stretches of time where the player is forced to hide in the dark. Given the significance of the role of tension in gameplay experience, it is vital to understand the theories and praxis behind the production of fear in game design. The following chapter will work as both a literature review and a theory section.

### 2.1 The Horror Genre and the In/Visible

With unseen horror being an important part of this research, articles like Carleton’s *Fear of the unknown: One fear to rule them all?* (Carleton, 2016) were chosen as background for this study due to their discussions of fear, although Carleton delves more into the psychological as in how fear of the unknown fundamentally works alongside fear in general. The study lines up some traditionally considered fears such as anxiety-sensitivity (fear derived from anxiety itself), fear of negative evaluation (fear of being negatively judged in society), and illness and injury sensitivity (fear of being harmed) and theorizes that fear of the unknown is what underlies most of these fears as it is a fear derived from evolving more cautious behavior in humans and other organisms. This is significant as *Darkwood* and the entire genre of horror is based on fear and anxiety to serve as their emotional vehicle for engagement. The space outside the player’s vision in *Darkwood* could be interpreted as utilizing the player’s fear of the unknown, combining with the game’s audio to alter the player’s imagination to create the worst outcome in their mind for what is hidden, thus making the players play more cautiously out of fear of the unknown.

Soderman focuses on off-screen horror in games in his article *'Don't Look . . . Or It Takes You': The Games of Horror Vacui* (Soderman, 2015). For Soderman fear is generated via the unknown horror outside the player's view which constantly threatens to appear within it. Soderman mentions that it can even "induce the physicality of 'horror' itself, meaning anxiety, repulsion and bristling and shivering of skin." He brings up the game *"The Path"* (2009) where the monster never appears on screen while still putting anxiety and uneasiness in the player. Horror games often utilize vision as a mechanic, how in the game *"Alone in the Dark"* (2001), the player must use a flashlight to both illuminate spaces and repel creatures. Soderman also mentions the game *"Slender: The Eight Pages"* (2009) where each illuminated tree or building will create a "vacui", a void behind the object where Slenderman could reside, how in horror games the player not only fears blind space but must look into it. *Darkwood* uses something like Soderman's Vacui in how the player's vision works in the game. Only a piece of the screen can be fully viewable for the player, everything else acts like the void which Soderman refers to, a space where unknown horror could reside, generating fear in the player. While the vision in *Darkwood* is not as important as in the previous game *"Alone in the Dark"* which Soderman mentioned, where the player's vision also acted as a weapon, it is still a very important aspect of the game for building the atmosphere that *Darkwood* has.

This research will be using Schachter and Singer's Two-factor theory of emotion as an analytical tool to view the results of this study. The Two Factor Theory of Emotion outlines a framework for what "fear" and other emotions are. It posits that emotions are a combination of cognitive environmental evaluations and physical responses. As an example, an increased heartbeat and sweating in the presence of a romantic interest could come from feeling in love, while the same reaction in the presence of an aggressive bear could easily be interpreted as fear based on cognitive evaluation from the subject. (Schachter & Singer, 1962). This framework will be used as it accounts for the vagueness of fear responses. Is someone scared

or excited? It depends on what they themselves label it as and in what context, which is explored through the semi-structured interviews with the participants of this study. These four articles were chosen to give insight into how imaginary fear works and how audio could be applied to enhance it, they demonstrate how horror has previously been approached in the arena of game design but also demonstrate an emphasis on the visual. This study will mostly focus on the aural aspect of horror, but it is worth considering that visuals play a very important part in horror alongside audio.

## **2.2 Involving the auditory/Soundscapes.**

Garner, Grimshaw, and Nabi made an experiment to find how much audio enhanced horror games (Garner et al., 2010). They also made players go through a short game, although their game was a custom one and the audio was much more in focus, finding that the manipulation of audio influenced the perceived intensity of the fear experienced by the players. This article works to justify part of the foundation of this study, by stating that soundscapes are a big influence on horror games. The result of the experiment could also serve as a source for comparison/triangulation for this project. Another point of note for the paper is their mention of “Freeze, fight, and flight are responses associated fear-inducing stimuli” and that “such response actions can be applied to the experience of fear in a computer game” (p. 5) There will be an attempt to fill the gaps which they failed to explore which are relevant to this study.

Liapis, Lopes, and Yannakakis wrote about creating a system to rank the sound with the strongest psychological reaction in their article “*Modelling Affect for Horror Soundscapes*” (Lopes et al., 2019) but also focus on the visual effects to raise the tension. Using examples like *The Shining* the authors claim that both the absence of sound and short, uncomfortable audio cues can contribute to increased tension and fear. The study goes rather deep into things like pitch and valence, making rather detailed data-driven models to rank



these audio cues, but the main relevance to this study is regarding the presence of sound in games and its effect on players which makes it more compatible with this study's framework.

In Graja, Lopes, and Chanel's article "Impact of Visual and Sound Orchestration on Physiological Arousal and Tension in a Horror Game" (Graja et al., 2021) they asked the question: "Which game effects can induce the strongest physiological reactions?", choosing the game *P.T.* (Konami 2014) to conduct their study on. They suggest that when certain emotions are induced, common patterns may emerge from human bodily functions, such as facial expressions or changes in heart rate. To classify these emotions, they used six discrete lists: happiness, surprise, anger, sadness, disgust, and fear. They mention that viewers of horror films act as mere observers, whereas in horror games, they would contribute themselves to the action. What they wrote about for visual effects was that a flickering light or dim light acts like a guide for the players, although does not reassure them, it is also often placed to limit the player's field of view so that they would feel less secure and submit to the imaginative fear of what could happen. Red can evoke a negative emotional response associated with a high level of arousal. A color *Darkwood* does not use often, almost only showing up wherever there is blood. For audio, they found out that "Looking exclusively at the type of effect used (i.e., sound, lights, or actions) suggests that sound tended to have a higher impact than both other effects. Participants tended to consistently favor sound over the others" (Graja et al., 2021, p. 294), also that the horror genre sometimes uses misophonic sounds, meaning sounds that elicit atypical emotional responses, to draw out the players' stress and anxiety. Unpleasant crying baby sounds, screams and cries from a female voice, or the constant ringing of a telephone were used as examples. It seems in the study that the crying woman and baby sounds had great effects on evoking anxiety and stress among the players. The sounds studied in this research were diegetic game sounds, meaning they were part of the narrative setting of the game.

The auditory aspect of videogames is an important but seemingly underexamined area. A better understanding of how affect and emotion work in games is needed, hence this study. These mentioned sounds will be compared to the sounds of *Darkwood*, to find some resemblance between the two. To better discover the cause, effectiveness, and importance of *Darkwood*'s audio. They also mention how silence can be used by explaining that it is sometimes used in movies to apprehend the viewer's attention during changes in story direction, however, it may also give some feeling of emptiness that can gradually grow into fear. *Darkwood* rarely uses silence if at all as there are always ambient sounds in the background, to probably make the player feel not entirely alone in this seemingly empty forest.

### **2.3 Theories of Emotion and Affect in Game Design**

Affect theory has a long history which is linked to a wider spectrum of emotional theories in the realm of psychology, but R.W. Picard makes a concise summary of the subject of emotion in her paper *Affective computing* (Picard, 2006). While her paper's focus is broader, trying to delineate the obstacles of human-computer interactions regards to the difficulty of computers to understand emotion, it also defines limits between emotional/affective states, emotional experiences, and expression. She states that feelings usually impact the body but can sometimes be difficult to measure due to social expectations, for example hiding one's disgust during a laboratory study. Emotions are complex, physical responses may not always map completely to what someone is feeling (p. 4). This study will mostly look at expressions, as the external displays or "symptoms" of affective emotional states (p. 5), which is quite possible. In the case of fear, it would be things like jumping in their seat if startled, restlessness during times of tension, or widening their eyes in fear at the appearance of a monster in the game. But it is worth also considering the term emotional experience as the personal perception of a subject's own emotions (p. 5), as this is a hidden

depth that may not be able to be fully measured during playtests but will nevertheless play a part in how the participants react to the stimulus which is given to them.

Bernard Perron's "Sign of a Threat: The Effects of Warning Systems in Survival Horror Games" is a rather straightforward article about horror games. More specifically, it is about the usage of warning systems and foreshadowing in horror. By offering an example of showing participants footage depicting a wood mill accident, Perron explains how the footage was perceived as more disturbing when showing the fingers getting closer to the milling machine's blade compared to the footage where the accident is sudden and unexpected. The anticipation amplified the fear response of the viewers, like how *Darkwood* uses ominous ambiance and sound effects to imply danger to the player. Perron also cites Will H. Rocket as differentiating horror and terror as "horror is compared to an almost physical loathing and its cause is always external, perceptible, comprehensible, measurable, and apparently material. Terror is identified with the more imaginative and subtle anticipatory dread. It relies more on the "unease of the unseen." (Perron, 2004, p. 2) That is to say, horror is more direct while terror is the lingering dread from anticipating horror.

## 2.4 Summary

So, in summary: Carleton and Soderman delve into unseen fear, however, Carleton focuses on the mental side of human psychology, explaining the fear of the unknown, while Soderman writes about games by explaining the fear of the unknown through the lens of the unseen in horror games. Graja and Lopes' article talks about creating the strongest reaction of emotion by using visual and sound effects that evoke discomfort, evoking misophonia through screaming, crying, and ringing. Liapis, Yannakakis, and Lopes' article is about creating an algorithm for predicting tension with sounds to assist in the creation of a horror sequence but also details silence and short noises as fear-inducing. Garner, Grimshaw, and Nabi constructed a test to find the impact audio has in horror games, proving that videogame

soundscapes have an impact on emotion. Schachter and Singer's article explains the Two-factor theory of emotion as reactions labeled by conscious context. Picard defines some of the core elements of affect and emotional theories, emphasizing the difficulty of understanding the inner voices of people but pointing towards the physical responses that are readable. Perron explains how ominous music and foreshadowing amplify terror by building up tension and the difference between terror and horror.

## **2.5 Darkwood Prologue**

Before moving on to the methodology it might be worth explaining the sequence of events the test subjects experienced. The Prologue begins with a short cutscene describing the mood and scenario. It is set in a plagued and inescapable forest. The player is a doctor who could not cure the plague and thus was isolated from the other inhabitants. The player starts inside a room, which is the only visible thing on the screen. There is a door and upon opening it will reveal five more rooms, the house is larger than initially thought. The player can now explore the full house except for one room which is locked, dialogue reveals that the playable character had locked someone in there earlier. After finding a key, the player can now venture outside the house. Upon opening the front door, players will be greeted by a dying dog laying on the ground outside its doghouse. Nearby on the ground lies an axe which can be picked up by the player. The axe can be used to finish off the dying dog, however, its real purpose is to remove a fallen tree blocking the road. A flock of crows will fly around and make some noise for a few seconds before disappearing. The soundtrack also switches to be more eerie, echoing sounds that could be interpreted as footsteps or screams from far away. The pathway gets tighter and darker, a torch can be crafted to illuminate the way. A broken shack will appear with a corpse stuck to a tree. A dead elk and dog can also be found nearby; however, their bottom halves have been replaced with human legs. The upcoming area looks like a wetland marsh with a man lying down on the ground. Interacting with this man will trigger a

short cutscene where the player, the doctor, kidnaps the man, takes him back to the house, and ties him to a chair to torture him for information on a way out from the forest. It ends with the doctor punching the man out of his chair and then locking the door after leaving the room.

The game switches perspective and the player now controls the kidnapped man. To leave the room the player must search through the tiny room to find tools to break the door open. Upon the player breaking down the door, they can see the doctor across the room looking towards them for a short moment before the lights are turned off. The doctor disappears, and the house is now free to explore except for the previously mentioned locked door separate from the door the player was locked behind. The event will be addressed as the “Doctor Jumpscare” later in this paper.

In the room furthest down lays a radio on the floor, this room also leads to another room that has a generator. Upon moving towards this room, a shriek from the far distance can be heard. A gasoline tank can be found in the same room, upon picking up this gasoline tank, a radio static will be heard. It is coming from the room with the radio. When walking back to that room, the radio has turned into a squirming naked corpse on the ground with dials for eyes, making radio static noises, this corpse will be addressed as the “Radio Corpse”.

It wants the player to turn on the generator, refuelling and turning the generator on will turn the lights back on. Now when the player interacts with the previously mentioned locked door, a combination lock appears, and the corpse reveals the numbers needed to open it. Upon opening the locked door, a man inside starts to talk. He is hiding behind a wall while asking for help. However, when the player gets close, the man gets aggressive and tries to kill the player. Killing this man will trigger the last event. The music starts getting more tense and shrieks can be heard. Finally, one giant shriek cancels all other sounds, and the lights die out.

Monsters can be heard trying to break into the house, and black silhouettes of humanoid monsters will chase the player. The Prologue ends when the player gets hit.

### 3 Methodology

To understand the way *Darkwood* builds tension, the main research question for this study will be considered: “How does the soundscape of *Darkwood* affect player experience?”. Additional questions, “Which sounds affect the players?” and “What emotional registers does it evoke?” are used to add further depth to the results of the study. The method for collecting the data consisted of a mixed method of controlled and nonparticipant observation in playtests, meaning that the participants in this study were supervised with minimal intervention (Given, 2008, Pp. 561-562) by the researchers in a controlled environment (Bhandari, 2023b) and their reactions were noted down, with semi-structured interviews. Semi-structured interviews are an interview method that has the structured format of structured interviews and the fluidity of unstructured interviews. The interviewer is able to pick and choose what questions are asked when, as long as the essential data is gathered. “The interviewer may follow the guide to the letter, asking the questions in the order they are given, or the researcher may move back and forth through the topic list based on the informant's responses.” (Given, 2008, pp. 811-812) which is more fitting for a fluid subject like emotions and player reaction as participants may not experience the exact same events in their playthrough.

It was a qualitative research design, as fear like all other emotions is complex, and cannot be analyzed numerically like in quantitative research. Thus, it is more appropriate to use a qualitative approach that focuses on each case on a deeper level to look for the meaning behind certain player behaviors (Bhandari, 2023a) like in the research question “What emotional registers does it evoke?”.

The study compared the data obtained from the interviews with the Two Factor Theory's view of emotion (Schachter & Singer, 1962), which is further compared with the other background reading. By linking what could be observed to happen in the game (stimulus/cue) and how the participants themselves reacted during the moment (physical responses), and then interviewing them about how they felt in that moment (cognitive evaluation) a conclusion about their emotional state could be made and what evoked these feelings. The data was noted down so that it could triangulate the experiential aspects of soundscapes in line with the research question. Some reading ahead was needed on how the horror genre in general does sound design for a suitable framework and to understand the theories to a greater extent.

Participants were made to play the game while researchers observed them to see their physical responses to stimuli which could be brought up in the interviews, the two-factor theory considering emotion to be a combination of the physical response and the person's own cognitive evaluation. After the playthrough, the participants were interviewed. This process with a combined duration of approximately 45 minutes to one hour were arranged with other people who agreed to be part of a playtest with a semi-structured interview afterward. The questions asked to the participants in this study were presented in the order considered most appropriate for the direction of the interview instead of in a specific order, due to the uncertainty of participant experiences and to allow the participants to maintain their train of thought during questioning.

Invitations were first handed out as quick messages through the online messaging program Discord with brief information about the study informing them that they were invited to be participants for a test regarding a study about Audio in Horror by using the game *Darkwood*. A test where they would play through the introductory part of *Darkwood* with an interview afterward. They were given information about when the test would take place and

that there was more information if they were interested. Those who were interested got sent an email. The email contained more information about the test such as the estimated times for the playtest and interview which was estimated at the time to be 20 minutes for the gameplay and 25 minutes for the interview, how the test would take place in person by doing the playtest on a laptop while the gameplay, audio and interview would be recorded.

The email also assured the participants that the gathered data would only be used for this research and that they would be granted anonymity. The researchers did not note down their names, only referring to them by numbers in the notes taken. More information about what the questions were about and between what dates the test could take place. They were also given information regarding the consent form which they would have to sign before being able to participate in the test. The test would take place at the participants' chosen location. The consent form paper was signed there if they had failed to do so before.

The gameplay would be recorded as the participant played *Darkwood* on the laptop with earphones and a gaming mouse. While the participants played the game, the researcher would take notes on the participants' behavior and physical responses to the game and would only interfere if the participants were noticeably stuck or were asking for guidance or clarity. After the participants completed the Prologue, the recording would stop, and the interview would start with questions regarding their experience with the game and about horror in general. The researchers used the gameplay to stimulate discussion in the interview, these interviews were noted down and later used when analyzing the data gathered from the readings and the notes written down from the playtests. The questions touched upon the participants' feelings of fear and whether they felt that the game was scary, what sections of the game were scary, if the audio was scary, and whether they thought that the game would be as tense with the audio removed. The interviews were recorded using a Samsung Galaxy 12. Gathered data were stored in handwritten paper notes, digital documents, video-files, and



audio-files, which will be disposed of by throwing the paper notes in waste disposal and deleting the digital files. Transcripts were made of the interviews and were deleted once the thesis was completed alongside the observation notes, which were not shared with anyone besides the researchers.

All five participants were male adults. No children were included due to the disturbing themes and visuals of the game. Participants are addressed by numbers in the order they perform the tests from 1 to 5, first to last. Participants 1, 2, 3 and 5 had plenty of experience with video games but had varied experiences with horror. Participant 1 was 27 years old with a bit above average knowledge about horror in general. Participant 2 was 22 years old with below average experience with horror in general. Participant 3 was 22 years old with above average experience with horror games. Participant 4 was 62 years old with a lack of experience in games but plenty with horror in general. Participant 5 was 21 years old with plenty of experience with horror games and horror in general.

By observing the participants playing *Darkwood*, the impact of the game's various scripted moments such as visual sound-effects on the participants was noted down and to be compared to each other to see what moments and sounds had the greatest impact on the participants, such as the *P.T.* experiment where they analyzed their data to find which game effects in *P.T.* that induces the strongest physiological reactions on their participants (Graja et al., 2021) but to also see if the visual gameplay aspect of *Darkwood* with its limited vision could "induce the physicality of 'horror' itself, meaning anxiety, repulsion and bristling and shivering of skin." which Soderman wrote about *vacui* (Soderman, 2015).

The questions (See Appendix A) were sorted into five categories. "Icebreakers" were mostly just to warm up the subjects and to get a cursory profile, understanding what sort of

person they are ahead of the actual questions. The chosen order of the questions was based on what was thought to be appropriate for the test based on the direction of each conversation, as long as all the essential points were met. The other categories were “Audio” to ask them about their perception of the audio, while “Emotion” was asking them about their overall emotional state during the playthrough. “Reactions” was for more direct questioning about how they physically reacted to the game rather than merely emotionally. The final category was “Horror Media”, a way to cap off the interviews by gauging the players’ interest and experience with the genre. These categories became the groundwork for the interviews as it was believed that they would be necessary questions for gaining the necessary knowledge for the research questions. The interviews were recorded and then transcribed to allow for coding once finished.

This study used a thematic analytical approach, analyzing common themes between interviews (Delve & Limpaecher, 2020), and an inductive code, meaning the data was only coded after initial analysis of the data instead of making all the codes ahead and trying to fit them under these themes (Delve, 2022). Due to the small sample size, this study was able to easily color-code the initial data and categorize it.

Some faults in this method might have been not having a consistent testing area. Environmental factors such as the time of day and background noise may have influenced the way that the participants perceived the game. The presence of the researchers might have disturbed the intended experience of horror as they had other people present during their playthrough. Matters of emotion and the mind, on a scope such as this, required some speculation due to the earlier stated issue of emotional opacity written about in *Affective Computing* (Picard, 2006), saying, “We cannot currently expect to measure cognitive influences; these depend on self-reports which are likely to be highly variable, and no one can read your mind (yet).” (p. 4).

#### 4. Results and discussion

The goal was to find out the answer to the question “How does the soundscape of *Darkwood* affect player experience?” by using the Two Factor Theory of Emotion to analyze the gathered data together with the secondary research questions “Which sounds affect the players?” and “What emotional registers does it evoke?”

This study was able to interview five people across seven days. These five people varied in multiple factors such as age and general game-experience, but also experience and tolerance to fear and horror. While some were talkative during the playtest, others were not. It is uncertain if fear was a factor in their amount of chatter since the result showed this to not be the case like in the last interview where the participant mentioned joking and talking is a way for them to cope with their fear and relieve tension. Quotes from the participants will be translated to be understandable in this study, as every interview except one was conducted in Swedish. As previously mentioned, participants will be addressed by numbers in the order they performed the tests from one to five, first to last.

All the participants would still consider *Darkwood* a horror game, even if there was no audio due to its visual aesthetic choices. The participants viewed the audio more as an enhancer of the horror aspect. Bodily reactions during playtests were often muted, mostly facial reactions such as raised eyebrows, widening eyes, or in one case, an open mouth. They would sometimes move closer or further away from the screen. They cited feeling somewhat scared at times. All significant moments that had created some response would be noted down, and to make the analysis and display of data easier, the moments were split into two categories. Notable moments and less notable moments, where the notable moments had created some sort of response from all the participants while only some of the participants would respond during the less notable moments.

#### 4.1 Notable moments

There were two notable moments during the playtest that always evoked some sort of response from the participants, these moments occurred during the last half of the Prologue. The first one was the previously addressed “Doctor Jumpscare”, Participants 1, 4 and 5 did not immediately notice the doctor when first observing the room, although Participants 1 and 5 would quickly see and focus their vision towards the doctor, holding it, until the lights went out, Participant 4 did not see the doctor at all and would only notice when the lights went out and would say: “Uh oh” (Participant 4). Participants 2, 3 and 5 would escape back into the previous room with the door still wide open, only Participant 2 would close the door, although several seconds after returning to the room. Participant 1 would try to move towards the previous room but changed his direction towards the doctor’s last known location before realizing that the doctor was gone, which he then resumed to explore the house. The audio during this sequence remains with a creepy ambient soundtrack playing in the background except for the sound the lights make before cutting out.

The other notable moment was the Prologue’s climax where the house gets ambushed by multiple black figures. This moment seemed to give a strong reaction for all the participants, by looking at both the gameplay and interview footage. The participants responded differently to this sequence. Participants 2 and 4 did not move their avatar while the black figures were breaking into the house. Participant 2 would say throughout the sequence while standing still: “Ahh What the fuck... No... I don’t want... NO! What the fuck!?” (Participant 2), being visibly scared from the observer’s view while Participant 2 heard the sound of the black figures. Participants 3 and 5 tried to run away and hide inside another room in the game. Participant 1 would roam around the house and investigate the sounds which the black figures made while breaking into the house, once realizing that the black figures had broken into the house, he would back off before getting attacked from

behind by one of the black figures. Between backing off and getting attacked he would say: “The Fuck, Oh Sh... Okay” (Participant 1). Upon ending the Prologue by getting hit by one of the black figures, Participant 5 would say: “That was scary and very uncomfortable, my god” (Participant 5), thus making a very clear vocalization of his cognitive evaluation of the moment. During the interview, when asked about any tense moments, Participant 3 would describe the climax by responding with: “Tense, at the end there I would say the most. When the half-dead person is lying on the floor and talking about what will happen next, and then a lot of figures, animals, something come in and attack you.” (Participant 3). When asked about what they believed gave the strongest reaction in them, Participant 5 would refer to the climax by answering: “When the things started to break into the house and stuff, because like right before they started to break in, so when they started shrieking and there were sounds everywhere, and you kinda like heard banging on the windows or whatever, that part was the peak like, oh god something is happening.” (Participant 5).

#### **4.2 Less Notable Moments**

There were some minor, less significant moments. These were moments that only some of the participants would react to or even acknowledge. These eight moments were hypothesized to have at least some effect on the participants, however, turned out to be less significant. The moments will be presented in the order that they occur during the Prologue. The first moment was the noise that the trapped man makes during the first part of the prologue, which can be heard as soon as the player starts to explore the house. It sounds like windows banging into the frame due to the wind. It is a subtle background noise and easily forgettable as only Participant 2 noticed it. He got frustrated and loudly said: “What the fuck is making that noise?!” (Participant 2), not fully understanding where it came from and that it bothered him. This did not affect the other participants, since no response or mention of this sound was made.

When the participants would leave the starting house, they would enter the second minor moment. Participants would be greeted by a dying dog upon leaving the house. This was a mix of visuals and audio, where the dog would squirm on the ground while whimpering. All participants except for Participant 4 had some reaction towards the dog whether it was a comment or acknowledgment of its presence, Participant 5 saw the dog as a potential danger and tried to walk around it while also keeping an eye on it. Participants 1 and 3 would casually approach the dog to examine it. Participant 4 walked around the dog without noticing it. Shortly after passing the dog, participants would come across an axe which is crucial to proceed through the Prologue. Participants 1 and 2 would, upon getting the ax, go back and kill the dog whereas the rest of the participants would continue like they had forgotten the dog.

When the participants left the area with the dog and got near the forest, a third minor moment would occur. The ambient soundtrack in the background would change. Participants 1 and 2 would pick up on it and mention it later during the interview while the other participants would not. The change of sound affected Participant 2's gameplay to the point where he would run back to the starting house, saying in the interview that he felt like being chased by something after hearing things around him: "When I walked into the forest. I heard a lot of things around me. I wanted to go back home, I felt chased." (Participant 2). Participant 1 would only mention this ambient noise when asked if the audio had an impact on his gameplay, he replied with: "Yes. In a way. You had the forest where you could hear sounds outside." (Participant 1). This is one of the times where the audio was the focus of the moment, although Participants 3, 4 and 5 did not react nor mention this soundtrack and the switch of audio.

The fourth minor moment was the crow event which occurred during the earlier parts of the forest section, where crows would make noises and fly away. This was a mix of an

audio and visual-focused moment where neither the audio nor the visuals were the clear focus, although the audio was more noticeable than the visuals. The crows gave mixed responses from the participants, for example, Participants 2 and 5 would make comments when it occurred, where Participant 5 said: “Crows, I don’t like that, I don’t like that at all” (Participant 5) when all the crows flew away while Participant 2 frustratedly said: “Ahh, fu... So birds!” (Participant 2) towards the crows. While Participant 1, 3 and 4 did not have a noticeable reaction, Participant 1 did not even remember the crows when shown the gameplay footage during the interview.

Halfway through the forest section, the participants would come across the fifth minor moment. Which was the visual part when the forest started to get dark. When the participants would realize that they would have to explore a dark section of the forest. This was a visual moment as the audio remained the same before and after this moment. This seemed to not have a great effect on the participants as none of the participants would hesitate about exploring the dark forest, although Participant 2 would say on crafting a torch to light up the area, saying that they did not like the new small amount of vision that they were given: “It barely did anything!” (Participant 2).

The dark forest part is a short segment, however, at the end is the sixth minor moment where the participants would encounter the corpse stuck to a tree and the mutilated animal corpses which looked to be on some sort of sacrifice altar. This gave more of a response compared to the previous moment where Participants 1,2 and 5 acknowledged the tree corpse as a potential threat that could wake up and pose a danger to the player if they got too close, akin to a bait-and-switch scare in other horror media. The animal bodies did not seem to have any noticeable effects on any of the participants. The audio remained the same as this moment was a visual-focused one, however during most of the outdoor section, sounds could occasionally be heard of snapping twigs from the character’s footsteps.

The seventh minor moment was the previously mentioned “Radio Corpse”, Participants 1, 2 and 5 were surprised, expecting a radio but found a squirming body emitting static radio noises instead. The participants had some sort of response upon realizing its presence, whether it was widening their eyes, just standing still while looking at the corpse, or having their mouth open, being lost for words. Participant 1 would not say anything but would briefly stand still while processing what he was looking at, the participant would try to hit the corpse several times before proceeding. Participant 2 would loudly say upon seeing the corpse: “What the fuck! It’s a fucking corpse!” (Participant 2) and slowly walk around in the room while mumbling to himself if the corpse had always been there, note that not all the participants noticed the corpse. Participant 3 initially missed the corpse but realized its presence when reexploring the room and briefly stood still while looking at the corpse, no words were said whereas Participant 4 completely missed the radio corpse in his playthrough. Participant 5 noticed the corpse when he turned the light on in the room and stood still for several seconds with his mouth open, while also being lost for words before having a bit of trouble forming his next sentence: “Uh, Hm, I think, I will turn it off again, I, hm... Hello sir” (Participant 5).

The final minor moment happens during the end of the prologue, just before the climax when the trapped man tries to lure the player close to him and then tries to kill the player. It could be seen as the first part of the climax as they are linked together, however, they could be two separate parts from each other with how they play out, and with the short time between the parts, they work on their own conceptually without the other. This moment did not give the same amount of response as the climax, but Participants 1, 2 and 4 mentioned this bit in the interview. Before the man attacks, a text shows up saying “Come closer”, Participant 2 seemed to be affected by this as he said in the interview: “When I entered the room and he was there and he went ‘come closer’ I was like nahhh.” (Participant 2).



Participant 4 mentioned that he reacted during this moment when asked if any moments made him react: “Yeah when I was about to kill that old man, it gave me a reaction.” (Participant 4), although it should be noted that the participant did not react physically. Participant 1 would mention the man when asked if the game made them emotionally feel. He replied with: “I had not fully immersed myself in the game so I didn’t feel anything special. I mostly felt from the dude who ran out and started to beat on me.” (Participant 1). Participant 1 physically jumped in their seat upon getting attacked by the man though.

### **4.3 Discussion.**

A surface observation would be that most players were startled by the ending scene, which depicts unknown assailants breaking into the house in which the player is and attacking them. It is a rather sudden and direct attack, confronting the players head-on with impending danger. This would be a situation like the gunman scenario that Schachter and Singer spoke of where arousal is sparked by an obvious threat (Schachter & Singer, 1962, p.2). It is not a complete equivalent though, as Schachter and Singer’s theories are based on real events. Videogames, as simulations, evoke different reactions when portraying scenarios. A gun aimed at someone’s head in real life is different to being aimed at in a videogame. In “Impact of Visual and Sound Orchestration on Physiological Arousal and Tension in a Horror Game” (Graja et al., 2021) they say: “In films, viewers act as mere observers hoping for the hero to survive, whereas in horror games, they contribute themselves to the action”. There is a level of immersion in games that allows the player to put themselves as part of the conflict or situation.

Clear physical reactions were seen, such as widening eyes, adjusting their distance from the screen, and other signs of arousal socially linked to fear and increased awareness. List of the stimuli that the participants clearly reacted to in different categories:

Ambiance:	<ul style="list-style-type: none"> <li>- The forest in the night (echoes, sounds of footsteps, and faint screams).</li> <li>- The creaking floor of the Doctor's house.</li> <li>- Stepping on branches.</li> <li>- The silence itself.</li> </ul>
Startling audio:	<ul style="list-style-type: none"> <li>- House being broken in.</li> <li>- Screaming/shrieking.</li> </ul>
Ludonarrative stimuli:	<ul style="list-style-type: none"> <li>- Killing the dog.</li> <li>- Final enemy attack.</li> </ul>
Audiovisual stimuli	<ul style="list-style-type: none"> <li>- Radio-body.</li> <li>- Doctor jumpscare.</li> <li>- Being beaten up by the doctor.</li> <li>- "Help me."</li> </ul>
Other:	<ul style="list-style-type: none"> <li>- The character switch.</li> <li>- Close breathing.</li> </ul>

**Figure 1. List of notable stimuli reacted to by players.**

Players also cited feeling tense even when there were no direct "scares" on screen. The sound of sticks breaking under their feet, the creak of old wooden floors being stepped on, and even complete silence were enough to worry them. The branches could be a misophonic response,

an unpleasant crackling that perturbs the players (Perron, 2004). As the earlier “Modelling Affect for Horror Soundscapes” (Lopes et al., 2019) said, the combination of silence with short uncomfortable audio cues has a tension-building effect on viewers, or in this case the player. More obvious sources of physical responses are the loud sounds such as the aforementioned break-in. Loud, sudden sounds that mimic distressing things are usually startling, a label that someone who is afraid might give a sudden sound instead of “surprising” according to the two-factor theory.

#### **4.4 Discussing the Notable Moments**

During the “Doctor Jumpscare”, participants would halt their movement and retreat once the lights went out since it is likely that they felt a sense of danger, that they were in an unknown hostile environment, thus retreated to the previous room, as to feel some sort of reassurance and protection, however since not all participants did this, it was only those who noticed the doctor before the lights went out that would retreat. Perhaps the participants felt that because they had simply lost control of the situation, since in their perspective, they currently had nothing to defend against the doctor with, weapon or vision. According to the Two Factor Theory of Emotion (Schachter & Singer, 1962), when a person feels an emotion, it is a combination of a natural physiological arousal occurring as a reaction to an event and the person using their immediate environment to search for any emotional cues to label their physiological arousal. The participants would go through a physical reaction in response to what they experienced and use the current environment to search for cues to label their emotion. The reaction would thus be labelled according to how they thought they would feel. When the participants saw the doctor, they would see him as a threat and thus label their emotion as fear, having reacted by freezing up and retreating. These reactions would then be brought up in the interviews (see Appendix A) to make it clear whether the participants

cognitively labeled their reaction as fear or not, as that is essential for the categorization of the emotion within the Two-Factor Theory (Schachter & Singer, 1962).

During the climax of the Prologue, participants would respond differently from each other, whereas two of the participants would stand still while two other participants had their avatar run away and hide. By observing the participants, the reason seemingly depended on the participant where one of the participants who stood still during the sequence was observed as appearing to be too scared to move whereas the other participant looked like they did not fully grasp the current situation and objective. The other three participants most likely did not fall into these criteria and thus had reason to move around and try to assess the situation. Both the audio and visuals are required with the audio building up tension until at its peak and then the lights go out, greatly limiting their vision. It is the game's way of showing the player the dangerous situation that they are in, a similar scenario to the "Doctor Jumpscare" where the participants labeled their emotion as fear but with tension building up beforehand. Using the Two Factor Theory of Emotion (Schachter & Singer, 1962) once again, the situation was viewed as a cue to provoke a physiological response, leading to a cognitive evaluation, that could then be pointed out as the cause of the specific emotion after the interview. The participants would label their emotion similarly to "Doctor Jumpscare" however due to the audio instead of visuals. With the doctor, the audio remained the same and the visuals were the focus, the climax could almost be seen as the opposite where the audio was the focus. The participants had already labeled their emotion before the visual effects had kicked in. Regarding the frozen participant, that would line up with what Nabi and Grimshaw said about "freezing" being a fear response. In this scenario, the visuals acted more as an enhancer to their already labeled emotion. Some of the participants were disturbed by the shrieks during the climax, perhaps a similar effect to the woman and baby cries (Graja et al., 2021). The researchers mentioned that out of all the sound effects used, the unpleasant sounds of a

screaming woman or crying baby had the greatest effect. Out of all sounds in Darkwood, the shriek is the closest resemblance to the unpleasant noise of a screaming woman or a crying baby.

#### **4.5 Discussing the Less Notable Moments**

This section will be looking back at the less notable moments and analyzing these moments by using the earlier literature to view the data from another perspective. The moments will be presented in the order that they occur in during the Prologue. To start with the first minor moment, is the noise coming from the trapped man's room at the start of the game. It only bothered Participant 2, however to the point for him to make the loud comment: "What the fuck is making that noise?!". It seems like the loud comment could come from built-up frustration due to not fully understanding the sound. By looking through this with the Two Factor Theory of Emotion (Schachter & Singer, 1962) again as a guideline it is possible to find the emotion that he felt during this moment, and what could act as an emotional cue in his immediate surroundings, by looking at the gathered data from his gameplay. It is likely that the participant did not know how to label his emotion and since he could not figure out the sound that was bothering him, it irritated him, thus labeling his emotion as irritation.

Continuing with the dying dog in the second minor moment where only two of the participants would kill the dog, perhaps the dog's whimpering sound had some effect on the participants since the dog never posed a danger to the participants. Those who killed the dog might have done it as an act of mercy since the dog had proven to not be dangerous or a potential threat. Perhaps the participant felt a similar effect to the unpleasant sounds of the screaming woman or crying baby (Graja et al., 2021). When they heard the whimpering dog, they wanted the unpleasant sounds to stop, however, this had to be before they picked up the axe, since the dog could not be heard from the axe's location.

In the third minor moment, when the background audio changed into a more eerie ambient soundtrack, one of the participants would run back to the starting house. The participant would answer in the interview that he felt chased when he started to hear things around him. It is likely that the sound made the participant feel uneasy and built up the tension until he had to run back to the house and escape to a known location where he would be safe compared to the unknown parts of the forest. By looking at this with the Two Factor Theory of Emotion (Schachter & Singer, 1962) as a guideline the participant likely heard the sound around him and based that to label his emotion as fear, since that is the only noticeable thing the participant could label his emotion with, it created this imaginary unknown danger which the participant could not fully comprehend. His fear of the unknown made him retreat to the house because that was the safest place he knew at that moment.

A bit later is when the fourth minor moment occurs, where the participants would see a group of crows. Since only a minority of the participants would respond or even notice the crows, it is hard to decipher what happened in the participant's mind when it only affected some of the participants. Perhaps it had to do with the audio since that is one of the more noticeable elements of the crows. One of the participants mentioned that the sound effects did not stand out from the music. It is possible that the crow audio did not stick out from the forest soundtrack, meaning that the participants did not acknowledge the crow sounds and thus did not think about the crows' visual presence.

During the fifth minor moment when the participants would realize that they would have to explore the dark section of the forest, however, it appeared that none of the participants was affected by this, traversing like usual. Perhaps the participants felt intrigued when presented by the dark forest rather than being scared since none of the participants would retreat, two of the participants even felt safe during this part. Although for different reasons, one of them was simply relieved that they would not have to do anything

complicated and only had to walk, whereas the other felt safe due to not having anything hostile pose danger to him, not feeling threatened by anything during that part. Perhaps the participants believed that nothing dangerous or scary in the game would currently happen since everything else thus far had just been teasers. They felt safe since the unknown thus far had not posed a danger to the players yet, however, one of the participants would still cautiously explore when traversing the dark forest section.

Further in the dark forest is the sixth minor moment, the participants are met by the unmoving corpse stuck to a tree. By bringing up Carleton's Fear of the Unknown (Carleton, 2016), it seems the tree corpse had a strong first impression on the participants, as it posed a potential danger. The participant who labeled the corpse as a potential threat and cautiously approached it, however, upon getting close, would realize that it was harmless.

The seventh minor moment was the encounter with the "Radio Corpse". According to Carlton, fear of the unknown is derived from evolution where caution around strange things, being possible sources of harm, is advantageous for the survival of the species (Carleton, 2016). This might have been the case during the "Radio Corpse" encounter, where none of the participants would retreat or back off once noticing the corpse, showing little aversion to it. It appeared that the participants were more surprised and confused or even enthralled by its design, thus a different reaction and response was created. The participants acted more carefully and cautiously around the corpse compared to the doctor. The participants did not feel the same danger as before with the doctor, not being presented with any immediate danger. The participants' emotions during this sequence were complex and not simple to analyze, they visually appeared to be experiencing a mix of confusion and fascination. Analyzing this with the Two Factor Theory of Emotion (Schachter & Singer, 1962) as with the previous moments, seeing the playtest as observing a cue, reaction, and then interviewing the participants for a cognitive evaluation, the fear in this moment could be deduced to be

from the participants seeing something that they did not expect to see. But since they did not see it as an immediate danger or go through the same physical stimuli as before, they did not label their emotion as outright fear in the interviews. Without the prerequisites, a physical reaction and a cognitive evaluation, the experience cannot be labeled as any specific emotion (Schachter & Singer, 1962). This interpretation is partially speculation by using the theory, the amount of fear the participants had during this specific moment cannot be completely certain, like Picard said, “No one can read your mind.” (Picard, 2006, p. 4)

The eighth and final minor moment which is at the end of the prologue, just before the climax. The participants would have to kill the hostile man who was trapped inside the room. It did not affect the participants as much as initially thought, it seems the participants already knew that the man was going to attack and had emotionally prepared for it. Even though the participants knew that the man would attack, one of the participants jumped a little bit in real life while another participant yelled out loud as the hostile man approached them. Since the participants believed that they would have to fight, it is likely that they labeled their emotion as something else than just fear, having anticipated the threat and confronted it head-on. By looking again at Carleton’s Fear of The Unknown (Carleton, 2016), they likely prepared mentally shortly before going into the fight, as the participants would cautiously approach the unknown danger in the dark.

#### **4.6 Research question**

By comparing the “Doctor Jumpscare” with the climax, they work similarly, although the climax uses sounds to enhance its impact. This also lines up with the participants who seemed to react stronger to the climax. The participants also mentioned that they believed that even though they would still see *Darkwood* as a horror game even if there were no sound, it would not have been as effective compared with sound. Now is this enough to answer the question of “How does the soundscape of *Darkwood* affect player experience?” The answer



seems to be that the soundscape of *Darkwood* acts as a sort of enhancer of the player's experience, however, that is generally the role of audio in most games, with horror games especially utilizing this. Is there anything *Darkwood* does with its sounds differently compared to other horror games? There was not much data on this gathered, when asked what makes *Darkwood* different or compared to other horror, the participants would focus on the art and visual aesthetic design of the game. What is one of the most noticeable things about *Darkwood* for a first-time player is that it is a top-down horror game, which is not a commonly found category. Perhaps Soderman's Vacui (Soderman, 2015) played a bigger role in distracting the participants from the game's audio. *Darkwood* has a lot of Vacui, the void in which danger could reside without the player directly knowing its presence. This occurred during the "Doctor Jumpscare" where the doctor inhabited the space on the screen which the player could not directly see. Further connecting the possibility of distractions of Soderman's Vacui, it is plausible that the soundscapes of *Darkwood* are nothing out of the ordinary compared to other horror games, however, it is also probable that the data-gathering failed to obtain enough data to confirm this.

## 5 Conclusion

To reiterate once more, the goal of this thesis was to figure out how the soundscape of *Darkwood* affects player experience. The study arranged five different playtests where the participants would play through the introduction part of *Darkwood* while the researchers observed their physical behavior and method of playing the game. The researchers also interviewed them afterward with questions regarding *Darkwood* and horror in general.

What this study found was that the participants had mostly muted physical reactions when playing the game, however, there were notable moments where most of the participants acted somewhat similarly during their playtest. When presented with a source of danger, the players would seek the safest place they knew. There was also a moment where the audio became the main focus, during the climax of the playtest, all participants would have some sort of response to the audio, building up tension. When asked about the game's audio, participants would say that they would still view the game as a horror game due to its visual aspect which further disconnects the audio's uniqueness compared to other horror games. But with many games, the audio is still important, and it would not have been the same experience, which the participants agreed with.

The study found that the audio of *Darkwood* did certainly have an impact on the players' experience, playing the role of an enhancer. The audio of the game would supplement the visuals and amplify the player's emotions.

What can be concluded from this study? There is an interplay between audio and visuals in horror games, so fully separating the two might not be very conducive to design philosophy. What this study has done is give a deeper insight into what sound does to games, it enhances the experience of a scary landscape. Sudden loud noises lead to quick, startled fear responses, but the truly terrific moments came from the slow, creeping ambiance of loneliness or the realization that they were not alone in the dark. The fear operated in a spectrum, from

the creeping dread of wandering through the dark forest, the cautious fascination of observing the radio corpse, to the outright horror of the break-in. As Perron said, the anticipation can be worse (or better if referring to horror media) than the actual thing. Players readjusted themselves in their seats and began talking to themselves when the terror began building up. While hardly revolutionary, this paper does emphasize the strength of subtle soundscapes and the careful crafting of a great audiovisual experience by *Darkwood*'s developers Acid Wizard Studios. The paper neither confirms nor contradicts Schachter and Singer's theories but offers a way to view the experience of gameplay through the lens of the Two Factor theory (Schachter & Singer, 1962).

The grander question regarding optimal sound design in horror is too great for just one study. Using this thesis as a foundation for future studies, perhaps a wider scale could be attempted. More players and tests would allow for a more comprehensive look into what these results imply. Two directions could be taken:

To explore the tools of horror more design-project with a custom sound library could be made to further delve into the realm of soundscapes. It would be a very informative method, allowing participants to pick what sounds to try on players. As mentioned in the interviews, one player cited the sound of breathing in their ear as ominous, which makes it evident that there is something bigger to explore in this subject.

Alternatively, to explore fear responses in gaming more biometric tools could be used to measure player responses. This thesis only used observation and interviews as tools, relying on the perceptiveness of the researchers and the honesty of the players to gain knowledge. Heart rate monitoring and eyeball tracking could do much more to find the physical responses that the study was looking for. The study found that the Two-Factor theory was an informative lens to see this through and the researchers believe there is more in it if explored further.

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## 6.2 Ludography

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- Kojima Productions (2014) *P.T.*, digital game.
- Parsec Productions (2012) *Slender: The Eight Pages*, digital game.
- Tale of Tales (2009) *The Path*, digital game.
- Darkworks (2001) *Alone in the Dark: The New Nightmare*, digital game.

## **Appendix A: The interview template**

*We help them sit down, introduce the game to them.*

Rough preparation:

“We’ll just watch you play the game for a while.”

“Horror games are a genre, people play them a lot. We’re testing a game called Darkwood that has been discussed a lot in the horror game sphere. We were quite inspired by it. We’re quite interested in seeing how people experience the game.”

[We observe them playing.]

Afterwards, we will have a semi constructed interview with the following questions:

We thank them for their time.

5 themes

*[Next Page for Questions]*

Ice-breakers	Audio	Emotional	Reactions	Horror media
Do you play horror?	Did the audio impact your gameplay much?	How did the game make you feel?	How do you usually react to horror?	Do you engage with horror media often?
Have you heard of Darkwood before?	<i>If "yep"</i> How? What particular moments?	Was it scary?	What moment gave you the strongest reaction?	[Follow up question] How would you compare this game to other horror media?
Have you played the game?	Were there any particular moments where the audio impacted your experience?	What moments were not so horrific?	When you [specific physical reaction], why do you think you did that?	Why not? Is it more of an occasional interest?
Do you have a favorite horror game?	Do you think this would be as scary if you didn't see <u>anything</u> ?	Were there any moments you thought were especially scary?	How did that make you feel?	What horror media do you prefer?
[Follow up question] What is your favorite horror game?	And in an opposite way, how would you view this game if there had been no audio?	Any specific moments you thought were suspenseful?		
		Was there anything that made you feel safe?		