

MASTER THESIS

A GAME OF PERSUASION

INVESTIGATING FACTORS INFLUENCING PLAYER RESPONSES TOWARDS THE PRESENTATION OF A PERSUASIVE GAME

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Abstract

Objective. Persuasive games, or games intending to reinforce or change players' attitudes, are notable tools for promoting social change, yet need to be played to be effective. Nevertheless, the current body of knowledge lacks insight into what motivates players to select and play a persuasive game and is inconsistent about the importance of presenting such games as fun and having no persuasive intentions. This novel study aims to fill this gap by investigating the effects of framing and source of recommendation on player responses, and their precedents, towards the presentation of a persuasive game.

Method. A 2 (entertainment frame: hedonic versus eudaimonic) x2 (persuasive intent frame: obfuscated versus explicit) x2 (source of recommendation: system- versus consumer-generated) between-subject online experiment was conducted among 310 participants. One week later, a short follow-up questionnaire measured self-reported play behaviour among 287 of them.

Results. No effects were found for entertainment framing as a stand-alone factor. An explicit persuasive intent frame led to higher perceived obtrusiveness, which in turn led to an increase in interest to play, a more positive attitude towards the persuasive game and a greater chance that the persuasive game is selected over an entertainment game. A consumer-generated recommendation had a more positive effect on intention to play than a system-generated recommendation had, and this effect was mediated by source credibility.

Conclusion. This study offers insight into how persuasive games can be presented to increase the chance of selection- and playing behaviour, so persuasive games can indeed become a notable tool for promoting social change outside of laboratory settings. Contradicting the commonly held perspective in the field, it concludes that concealing a persuasive game's intention by solely focusing on fun or by using obfuscating techniques is not necessary.

Keywords: *persuasive games, framing, perceived obtrusiveness, source of recommendation, player responses, media selection, persuasive game presentation*

Table of Content

1.	Introduction.....	5
2.	Theoretical Framework	7
2.1	Persuasive Games.....	7
2.2	Player Responses and Their Precedents to Persuasive Game Presentations	7
2.3	Framing as a Factor Influencing Player Responses and Precedents	8
2.3.1	Entertainment Frames.....	9
2.3.2	Persuasive Intent Frames	12
2.3.3	Combined Effects of Entertainment- and Persuasive Intent Frames	13
2.4	Source of Recommendation as a Factor Influencing Player Responses and Precedents.....	14
2.5	Conceptual Model	15
3.	Methods	17
3.1	Research Design	17
3.2	Participants.....	17
3.3	Stimuli.....	18
3.3.1	Target Persuasive Game	18
3.3.2	Design of Game Descriptions Using Entertainment- and Persuasive Intent-frames	18
3.3.3	Design of Recommendations.....	22
3.4	Procedure	23
3.5	Measures	25
3.5.1	Gaming Experience and Attitude	25
3.5.2	Selection Behaviour and Interest to Play	25
3.5.3	Attitude Towards the Persuasive Game.....	25
3.5.4	Perceived Obtrusiveness	25
3.5.5	Intention to Play	25
3.5.6	Perceived Source Credibility.....	25
3.5.7	Playing behaviour	26
3.5.8	Post-play Attitudes and Willingness to Help	26
3.6	Reliability and Validity	26
3.7	Manipulation Checks	29
4.	Results	30
4.1	Descriptive Results	30
4.2	Effects on Selection, Interest, Intention and Playing Behaviour	31
4.3	Effects of the Entertainment Frame	32
4.4	Effects of the Persuasive Intent Frame	32
4.5	Interaction Effects Between the Frames.....	34

4.6 Effects of Source of Recommendation.....	36
4.7 Overview of Results of Tested Hypotheses.....	37
4.8 Additional Analyses	38
5. Discussion.....	38
5.1 Discussion of Results	42
5.1.1 The Intention-Behaviour gap.....	42
5.1.2 Implicit Effects of Framing.....	43
5.1.3 The Credibility of Consumer-generated Recommendations.....	44
5.2 Theoretical Implications	45
5.3 Limitations and Future Research Directions	46
5.4 Practical Implications.....	47
6. Conclusion	49
References.....	50
Appendix A	56
Detailed description of the gameplay	56
Appendix B	57
Transcripts of Pre-test Interviews	57
Interview 1.....	57
Interview 2.....	61
Interview 3.....	64
Interview 4.....	67
Interview 5.....	71
Interview 6.....	75

1. Introduction

Perhaps counterintuitively to some, not all games have the sole purpose to entertain players. Take for example *Train*, an analogue game released in 2009. Players are challenged to put as many yellow pawns, representing people, as possible into little trains. When finished, a card is drawn revealing the destination of this packed train; one of the Nazi concentration camps. According to the developer, Brenda Romero, the game aims to ask two questions; “Will people blindly follow the rules?” and “Will people stand by and watch?” (Romero, 2019). *Darfur is Dying* is another example of a game that has a message and, therefore, aims beyond entertainment. This digital game gives players a chance to experience the struggles of refugees living in Darfur, Sudan, and was designed to “raise awareness of the genocide taking place in Darfur and empower college students to help stop the crisis” (Games for Change, 2022). Both games can be said to belong to the category of persuasive games. A persuasive game is a game that has the intention to change or reinforce the attitude of its players towards a certain topic (Jacobs, 2018). For instance, the game *Power and Control* aims to change players’ attitudes towards teen dating violence by offering them a chance to experience what it is like to be a victim of abuse, through a simulation of actual abuse taking place (Jacobs et al., 2019). Persuasive games are a notable tool for promoting social change (Cohen, 2014) and, therefore, the development and distribution of such games have increased enormously in the past decade (van ’t Riet et al., 2018).

Because they are perceived as valuable tools for promoting social change, research attempting to validate persuasive games is on the rise as well (see for example Mayer et al., 2014). Various studies have investigated the effectiveness of persuasive games in terms of actually influencing the attitudes of players (e.g., Gerling et al., 2014; Jacobs, 2018; Jacobs et al., 2019; Peng et al., 2010). Although there are some exceptions (van ’t Riet et al., 2018), many of the results show that persuasive games can indeed be effective tools for attitude change. However, it goes without saying that for a persuasive game to be effective, it must be played first. Yet we know little to nothing about the motivations of players to start a persuasive game in the first place (Jacobs, 2021). Hence, more insight into the factors that influence one’s decision to either play or not play a persuasive game is a valuable addition to the current body of knowledge. Although validating persuasive games is very important, it is also necessary to look beyond effectiveness towards motivations of play if we indeed want persuasive games to be notable tools for promoting social change.

On a more practical note, more insight into factors influencing player responses towards the presentation of a persuasive game is of value to persuasive game developers and platforms. Jacobs (2021) distinguishes between two types of audiences for games. On the one hand, there are captive audiences, who typically do not make the decision to play a game themselves. Instead, this decision is made by superiors, for instance, an educator or an employer. On the other hand, there are natural audiences, who do make the decision to play a game themselves. Persuasive games are often targeted at natural audiences. This means they need to be sought out by individual players themselves, as these players are not coerced or asked to play the game by superiors. Hence, insights into the factors influencing players’ responses to persuasive game presentations are needed, to help practitioners make specific decisions on how to present their game and enable them to indeed promote social change.

This study, therefore, aims to shed light on factors that might influence player responses to the presentation of persuasive games. These responses are conceptualized as selection behaviour and playing behaviour, and their precedents are attitude, interest to play, and intention to play. As influencing player responses and precedents in the context of persuasive game presentations is still an undiscovered territory, three salient factors will be focussed on. All three might influence a player’s decision to select and play a persuasive game yet have not been investigated thus far. There are two content-related factors, which are entertainment frame and persuasive intent frame used in a persuasive game description, and one contextual factor, which is source of recommendation. Obviously, many other factors could influence player responses, and their precedents, towards persuasive games. These include, but are not limited to, personal characteristics of players, such as

personal relevance of the topic a persuasive game deals with (Jacobs, 2017, chapter 2), or current moods, which according to de Vries et al. (2012) can influence choice behaviour. Yet, this study will solely focus on the three mentioned factors of entertainment frame, persuasive intent frame, and source of recommendation, as persuasive game developers and delivery platforms can influence these directly. This makes it possible for this study to provide persuasive game developers and platforms with practical advice on how to present their games to players, in a way that increases the chance of adoption.

The first two factors deal with framing. Framing entails that the way information is presented can influence or change attitudes and behaviour, by shaping the interpretation of that information (Gursoy et al., 2022; Tversky & Kahneman, 1981). For instance, the frame used in a description of a persuasive game could influence attitudes towards this game and subsequent selection and playing behaviour. An entertainment frame either focusses on hedonic, or fun-related, gratifications, or on eudaimonic, or meaning-related, gratifications of playing a certain game. Current debates focus on the necessity of selling a persuasive game as being fun (Jacobs, 2017, chapter 8, 2021); this study aims to contribute to this debate. Secondly, a persuasive intent frame refers to the extent to which a persuasive game description explicitly communicates its persuasive intentions to players. In research into the effectiveness of persuasive games, attention has been paid to the effects of players being aware of the persuasive intentions of the game during gameplay (see for instance Jacobs, 2017, chapter 8; Kaufman & Flanagan, 2015). This has not been done a lot yet for pre-play situations, which are of interest to this study. Possibly the persuasive intent frame used in a persuasive game description also influences attitudes towards this game and subsequent selection and playing behaviour. The third factor is source of recommendation, as recommendations seem to be influential factors affecting behavioural intentions (Alsheikh et al., 2021; Ashraf et al., 2017), yet the source giving the recommendation can determine the strength of the effect (Ashraf et al., 2017; Lin, 2014). Accordingly, this raises the question if the source recommending a persuasive game to a player can influence intentions to play.

In response to the call of Jacobs (2021) to start investigating what could motivate playing behaviour for serious games, the main research question of this study reads: *to what extent do entertainment frame, persuasive intent frame and source of recommendation influence player responses towards the presentation of a persuasive game?* This study extends existing research into the effectiveness of persuasive games, by aiming to gain both theoretical and practical knowledge about how to persuade players to select and play persuasive games. To explore the main research question, a 2 [entertainment frame: hedonic versus eudaimonic] x 2 [persuasive intent frame: obfuscated versus explicit] x 2 [source of recommendation: system-generated versus consumer-generated] between-subject experiment was conducted online. Additionally, one week after completing one's participation in the experiment, self-reported playing behaviour was measured among the same participants.

2. Theoretical Framework

Intending to better understand player motivations to select and play a persuasive game, this chapter will introduce the main concepts and theories involved in this study. First, a more detailed description of persuasive games will be given. Next, player responses, conceptualized as selection- and playing behaviour, and their precedents intention to play, interest to play, and attitude, will be examined. This conceptualization is mostly based on the Theory of Planned Behaviour, which will therefore be discussed. Subsequently, three factors that are expected to have an influence on this set of player responses and precedents are considered, by discussing entertainment framing, persuasive intent framing and source of recommendation. These three potentially influential factors will be applied to the context of persuasive games and hypotheses about their effects on player responses and precedents will be proposed. The chapter will end with the presentation of a conceptual model, which gives an overview of the proposed relationships between the concepts described.

2.1 Persuasive Games

Games come in various forms, yet they can be broadly divided into serious games and entertainment games. Serious games are defined as games with intentions beyond mere entertainment (Peng et al., 2010). This implies that entertainment games can be defined as games that do not have such intentions and instead merely aim to entertain. Therefore, it can be argued that the main difference between these two types of games is the effect they strive to have on their players; the goal can be to solely entertain or to do more. A game can for example also aim to teach, train, or persuade.

The specific goal beyond entertainment of a serious game depends on the type of serious game, as these can too be divided into several categories. One of these categories is the category of persuasive games. For persuasive games, the goal beyond entertainment is to change or reinforce attitudes (Jacobs et al., 2019). Although entertainment games might also have an influence on player attitudes towards a topic, as the designers' attitudes and beliefs can be embedded in the design of the game and, therefore, be transferred to the player (de Smale et al., 2019), this is not their intentional aim. In the case of a persuasive game, developers do intentionally strive to influence attitudes (Jacobs et al., 2019). Hence, it can be reasoned that this intentionality is what sets persuasive games apart from entertainment games

Although they are different, persuasive games and entertainment games can be found in the same place, on the same website. When looking for a (short) online game to play, individuals can make use of several websites making games available to the public. An example that offers both persuasive games and entertainment games is Itch.io (see www.itch.io). Usually, many different games are listed on these websites. On Itch.io, the listing includes a short description of each game, aiming to attract players. In this study, such websites are referred to as delivery platforms.

2.2 Player Responses and Their Precedents to Persuasive Game Presentations

Now that it is clear what is meant by persuasive games, this section will further introduce player responses, and their relevant precedents, towards the presentation of this specific type of game. Different players might respond differently to the description of a persuasive game on a delivery platform and to a recommendation of such a game. For example, some might choose to select and play a persuasive game presented, while others decide not to do so and maybe instead opt for an entertainment game. Within the context of this study, player responses to persuasive game presentations are conceptualised as selection behaviour, which involves choosing a specific game over others, and playing behaviour, which involves accessing, starting to play and/or finishing to play a game. Based on the Theory of Planned Behaviour (Ajzen, 1991), it can be expected that selection- and playing behaviour are preceded by behavioural intentions and attitudes.

Behaviour is mostly predicted by behavioural intentions. Behavioural intentions are defined as indications of the extent to which an individual is willing to make an effort to perform certain

behaviour (Ajzen, 1991). Lin et al. (2010) define behavioural intentions as “an indication of an individual’s readiness to perform a given behaviour” (p. 847). Translated to the context of this study, behavioural intentions are defined as the extent to which a player is aspiring to play a certain persuasive game. According to Ajzen (1991), behavioural intentions are positively related to actual behaviour.

Behavioural intentions in turn can be predicted by attitudes (Ajzen, 1991). Attitudes are subjective evaluations of a specific entity that are either favourable or unfavourable (Eagly & Chaiken, 2007), and are preceded by cognitive beliefs about performing certain behaviour (Ajzen, 1991). For this study, this translates to attitudes being positive or negative evaluations of a game, based on expectations about the experience of selecting and playing a certain game. Selection and playing behaviour on a game delivery platform is, based on the Theory of Planned Behaviour, likely to be predicted by positive or negative evaluations of this specific game. Playing behaviour is also likely to be predicted by behavioural intentions.

What is not considered by the Theory of Planned Behaviour, is that even if one game is selected over another game, a player might still be interested in playing the game not selected. This means that if a game is not selected at a certain time, attitudes and intentions to play do not necessarily need to be negative or low. To be able to see to what extent players are interested in playing a persuasive game based on the presentation of such a game, regardless of their selection behaviour, a fifth concept has been added to the set of player responses and precedents. This is interest to play, which is conceptualized as expressing interest in playing a persuasive game. It is slightly different from intention to play, which focusses on aspiring or planning to play a game. Interest to play focusses solely on interest in playing a game, without including necessary behaviours to do so. It is expected that a more positive attitude towards a persuasive game presented leads to a higher interest to play. Therefore, the following hypotheses are proposed:

H1: Attitude towards a persuasive game is positively related to a) selection behaviour, b) interest to play, and c) intention to play the persuasive game.

H2: Intention to play a persuasive game is positively related to subsequent play behaviour.

To sum up, players can respond to the presentation of a persuasive game on a delivery platform by choosing to either select and play this game or to not do so. This behaviour depends on several precedents: the player’s attitude towards the game and intention to play the game. Regardless of selection behaviour, players can develop an interest to play a persuasive game, based on the presentation of this game. This interest is likely to be predicted by attitude towards the game as well. The next section discusses three factors that are expected to influence the set of player responses and their precedents.

2.3 Framing as a Factor Influencing Player Responses and Precedents

To better understand why and when players choose to select and play a persuasive game, it is important to know what factors might influence the previously described player responses and their precedents. It might be especially beneficial to understand those factors that developers and delivery platforms can influence, such as the content of a description of a persuasive game. Therefore, the concept of and theory behind framing will now be considered, as a content-related factor that can influence player responses and precedents. It will also be outlined how theoretical knowledge about framing can be applied to the context of this study; the context of persuasive games. This will be done by explaining how a description of a persuasive game can have an entertainment frame and a persuasive intent frame. Moreover, hypotheses will be offered about how framing is expected to influence the set of player responses and precedents.

Framing is defined as “presenting information in a specific way to influence or change the recipient’s behaviour”(Gursoy et al., 2022, p. 3). Framing theory implies that this can be done by emphasizing chosen aspects within a message while leaving out others (Piñeiro-Naval et al., 2018).

Because the way a message is formulated can shape the interpretation of this message and, therefore, influence subsequent attitudes and behaviour (Tversky & Kahneman, 1981), it is considered an effective communication tool for persuasive communication (Zhang et al., 2018). Hence, the way a persuasive game's description is framed by the developers or the distribution platform might help players to form an attitude towards the game. Consequently, it can be assumed that the frame used can influence the decision to either select or not select a persuasive game and in the end intention to play and playing behaviour. How this would work for firstly entertainment- and secondly persuasive intent-frames will be explained next.

2.3.1 Entertainment Frames

When writing a description of a persuasive game, one aims to positively influence attitudes towards this game and increase the chance of selection. Therefore, it might be worthwhile to have the description appeal to what players are looking for in a game. In line with previous studies investigating individuals' reasons for entertainment media selection (e.g. Oliver & Raney, 2011; Tamborini et al., 2010), a distinction can be made between so-called hedonic reasons and eudaimonic reasons. Hence, when writing a description of a persuasive game, one can use hedonic or eudaimonic frames. These can be considered types of entertainment frames. To formulate such frames, antecedents of hedonic and eudaimonic play reasons need to be explored. Therefore, hedonic and eudaimonic motivations, needs, and game aspects are now first described. Then, it will be explained how this information will be used in this study, by proposing what hedonic and eudaimonic frames would look like.

Hedonic Motivations, Needs and Game Aspects

When individuals select entertainment media (e.g., games) to seek pleasure, it can be said that their selection behaviour is based on hedonic motivation. This type of motivation is characterized by a positive valence (Tsay-Vogel & Krakowiak, 2016). Oliver and Raney (2011) use constructs such as fun, silly, happy, positive, and entertaining to describe media content that can appeal to hedonic motivations. Additionally, their proposed measurements imply that having fun, laughing, and having a good time are sought for in entertainment experiences when an individual is hedonically motivated. Taking a uses-and-gratifications perspective, Rubin (2008) states that looking for entertainment and amusement, as is the case with hedonic motivation, is one of the main drivers of media consumption. This makes hedonic motivation a likely precedent of the selection of entertainment media, such as commercial entertainment games. Possibly, hedonic motivation also plays a role in the selection of a persuasive game, even though these types of games are explained to have objectives beyond mere entertainment.

Based on Tamborini et al. (2010), hedonic reasons for game selection might also be explained by the need to fulfil lower-order needs. These lower-order needs, which are based on the hierarchy by Maslow (1943) and are relabelled to hedonic needs by Tamborini et al. (2010), include physiological needs. Physiological needs can for example be clarified by mood management theory (Zillmann, 1988). The theory explains that individuals use media content to regulate their level of arousal in an optimal way. This means that they look for media content that can either enhance a positive mood or decrease a negative mood. As Oliver and Bartsch (2010) point out, this makes clear that mood management theory reflects the assumption that hedonic needs play a role in media entertainment selection and thus game selection. An example of a strategy to escape bad moods or further enhance positive moods is escapism (Oliver, 2008). Escapism entails the desire to temporarily escape the real world we live in. This makes individuals select certain entertainment media, such as a game, to withdraw from everyday life (Vorderer et al., 2004).

If hedonic motivations and needs can drive game selection, then specific aspects of a game associated with hedonic game experiences might be able to do so as well. Hedonic game experiences are described as experiences of pleasure, emotional gratification and enjoyment derived from playing a game (Hollebeek et al., 2022), or simply as having fun (Daneels et al., 2020). Thus, hedonic

experiences can be said to be created by fulfilling hedonic motivations or needs. Therefore, it is plausible to assume that hedonically driven players might search for games entailing specific aspects that they associate with hedonic experiences. This implies that those game aspects might influence selection behaviour.

In a qualitative study into how players describe fun game experiences, Rogers et al. (2017) found that fun games were often described in terms of gameplay mechanics and direct interactions between players and the game. Examples are the game being described as easy to play (e.g., due to intuitive control schemes), as involving competition, or as leading to feelings of being compelled to continue playing. Similar results were reported by Wang et al. (2009) who state that the most frequent game aspects associated with fun experiences include complexity, which leads to feelings of being intrigued, and the ease and intuitiveness of controls. Thus, game aspects leading to hedonic experiences range from ease of use of the control scheme to the inclusion of competition and the evocation of intrigue.

Eudaimonic Motivations, Needs and Game Aspects

When entertainment media (e.g. games) selection has the objective to seek meaning, this is called eudaimonic motivation (Oliver & Raney, 2011; Tsay-Vogel & Krakowiak, 2016). According to Bartsch (2012), this type of motivation entails being motivated by a “search for deeper insight, meaning, and purpose in life” (p. 273). It furthermore entails having a positive attitude towards entertainment media that leads to reflection (Oliver and Raney, 2011). Eudaimonically motivated individuals look for media content that focusses on meaningful human conditions, challenges their world view, and makes them think. Several scholars argue that these eudaimonic motivations might be based on delayed cognitive gratifications (e.g. Bartsch, 2012; Oliver & Raney, 2011), such as a deeper understanding of life or meaning, or an opportunity for personal growth and introspection (Igartua & Barrios, 2013).

Selection of entertainment media such as games might also rise from the desire to satisfy higher-end needs. According to Maslow (1943), higher-end needs entail social, esteem and self-actualization needs. Tamborini et al. (2010) call these needs eudaimonic needs and state that these include the need for autonomy, competence, and relatedness. However, Oliver and Raney (2011) argue that the fulfilment of these three needs is mostly focussed on the self, while their proposed definition of eudaimonic motivation is more transcendent, focussed on the broader need to understand the human condition better. Therefore, it might be more suitable to define eudaimonic needs as the need for insight, as the fulfilment of this need can lead to eudaimonic experiences (Daneels et al., 2020, 2021; Oliver et al., 2018) and striving towards such fulfilment can therefore be seen as eudaimonic needs influencing the selection of a game.

Individuals can have eudaimonic game experiences as well. Eudaimonic game experiences are experiences of meaningfulness, emotional movement and thought provocation derived from playing a game (Daneels et al., 2020). Next to motivation and needs, specific game aspects associated with eudaimonic experiences might then also influence selection for eudaimonically driven players. According to Rogers et al. (2017), meaningful games can be described as promoting a deep connection to characters or other players, involving moral decisions, or having a narrative that entails meaningful themes and messages. The latter is also mentioned by Daneels et al. (2020), while a separate study by Daneels et al. (2021) also notes strong connections with characters and narrative-impacting decisions as game aspects leading to eudaimonic experiences. Therefore, eudaimonic game aspects can be said to entail moral decision making that can impact the narrative, a meaningful narrative, and strong connections with the character or other players.

Hedonic and Eudaimonic Frames

The section above makes clear how players can have hedonic or eudaimonic reasons for selecting a game, based on either hedonic or eudaimonic motivations, needs and game aspects. Now, it is possible to establish what an entertainment frame that is either hedonic or eudaimonic

could look like. To be able to apply the concept of framing to the context of persuasive games, the following definitions are proposed.

Persuasive game descriptions with a hedonic frame are those descriptions that aim for interpretations of the game being fun and offering an enjoyable experience. This way, the goal is to create a positive attitude towards the game and influence selection behaviour. This can be done by appealing to hedonic motivations and needs, and by including game aspects associated with hedonic experiences. Appealing to hedonic motivations, defined as seeking fun or a good time, can be done by incorporating words such as fun, enjoyable, happy, and positive in the description (Oliver & Raney, 2011). As hedonic needs are defined as needs to regulate arousal levels to enhance a positive mood or decrease a negative mood (Tamborini et al., 2010; Zillmann, 1988), the description could furthermore highlight for instance the mood-enhancing qualities of the game, such as offering an escape of daily life. Hedonic game aspects entail the game involving competition, being easy to play or leading to players wanting to keep on playing (Rogers et al., 2017). Hence, a hedonic-framed game description could include information about the game having either one or more of the mentioned characteristics.

The description of a persuasive game that makes use of a eudaimonic frame strives for interpretations of the game offering a meaningful experience and through these interpretations, it strives for a positive attitude and selection behaviour. To be able to do so, the description can appeal to both eudaimonic needs and motivations, as well as incorporate game aspects that are associated with eudaimonic experiences. Eudaimonic motivation is defined as seeking meaning and appealing to this type of motivation can be done by using words such as meaningful, reflective, and understanding in a game's description (Oliver & Raney, 2011). The description could further appeal to eudaimonic needs, defined in this study as the need for insight (Daneels et al., 2020, 2021; Oliver et al., 2018). This means it could for example speak to a player's need to gain insight into the topic of a game or a greater understanding of an issue. To include game aspects associated with eudaimonic game experiences, the description could for example inform about the game leading to character-attachment, having a meaningful narrative, or involving moral choices (Daneels et al., 2020, 2021; Rogers et al., 2017).

Because framing can influence both attitude and behaviour (Gursoy et al., 2022; Tversky & Kahneman, 1981; Zhang et al., 2018), it is expected that there will be a relationship between the entertainment frame used in a persuasive game description and both attitude and selection behaviour. In this study, respondents have been exposed to a description of an entertainment game and a description of a persuasive game. Thereafter, they have been asked to indicate which one they would select to play. Based on the aforementioned reasoning, it is expected that different entertainment frames can cause potential players to hold more positive or negative attitudes towards a persuasive game and subsequently to be more or less likely to select a persuasive game compared to an entertainment game.

Some evidence exists about the prevalence of hedonic and eudaimonic reasons for media selection behaviour across age groups. Oliver and Raney (2011) found that as individuals age, their preference in media experiences shifts from hedonic to eudaimonic experiences, implying that selection behaviour for games is possibly more and more driven by eudaimonic reasons as a person ages. Igartua and Barrios (2013) tested if they could find similar results in a Spanish population and reported that hedonic reasons in media selection were significantly more prevalent in individuals between the age of thirteen and seventeen. For the age groups of 18-39 and 40-75, eudaimonic reasons were significantly more present. As will be described in the methods section, participants of this study need to be at least 18 years old. Considering this age limit and the previous findings of Oliver and Raney (2011) and Igartua and Barrios (2013), it is expected that eudaimonic motivations will be more prevalent in this study. Therefore, the following hypothesis is proposed:

H3: A persuasive game description with a eudaimonic (hedonic) entertainment frame leads to a) more (less) positive attitudes towards this persuasive game, b) higher (lower) interest to play

this persuasive game, and c) higher (lower) likelihood that this persuasive game is selected compared to an entertainment game.

2.3.2 Persuasive Intent Frames

A second type of framing that can influence selection behaviour through influencing attitudes towards a persuasive game (and therefore in the end playing intentions and playing behaviour), is the persuasive intent frame. This entails the extent to which the description of a game is open about its persuasive intent. As explained by the Persuasion Knowledge Model (Friestad & Wright, 1994), being explicit about persuasive intentions can enhance persuasion knowledge in target audiences. Hereby, persuasion knowledge is defined as the awareness of individuals that they are subject to persuasion. Jacobs (2017, chapter 8) calls this phenomenon perceived obtrusiveness. As such, persuasion knowledge or perceived obtrusiveness can lead to the adoption of protective measures against this persuasive attempt, called reactance (Friestad & Wright, 1994). In the case of a persuasive game, a player can be aware of the persuasive intent of the game, having high persuasion knowledge and perceived obtrusiveness, or not. The degree of openness about the persuasive intent determines the level of awareness and perceived obtrusiveness, which is in general believed to be best kept low to avoid reactance (e.g. Christiansen, 2014; de la Hera, 2019; Kaufman et al., 2021).

Kaufman and Flanagan (2015) found that revealing a persuasive game's purpose before playing the game led to players reporting significantly less enjoyment during the game as compared to a condition in which the persuasive intent was less explicitly mentioned. This could mean that natural players, who make the decision to play or not play a game themselves (Jacobs, 2021), decide to not select and play a certain game, as they believe it aims to persuade them of an issue and therefore that they will not enjoy it. Since beliefs about behaviour can influence attitudes towards this behaviour (Ajzen, 1991), it could be that negative beliefs about playing a game with an obvious persuasive intent can lead to negative attitudes towards playing this game and thus a decreased likelihood of selection- and playing behaviour. On the other hand, Jacobs (2017, chapter 8) did not find any signs of psychological reactance influencing for example enjoyment in players who knew they were targets of a persuasive attempt. Hence, it is worthwhile to investigate the role of persuasive intent frames in the formation of attitudes towards a game as well as subsequent selection and playing behaviour, as current findings are inconclusive.

In the context of persuasive games, developers and delivery platforms have a choice in the extent to which they want to reveal a game's persuasive intent in the description of the game. To do so, one can choose to use or not use an embedding strategy, or a design strategy that aims to be not explicit about the persuasive intent of a game to avoid reactance in players (Kaufman & Flanagan, 2015). Kaufman et al. (2021) propose such an embedding strategy that can be employed pre-game play and is, therefore, suitable to incorporate in a persuasive game description. This strategy is called obfuscating, and it entails presenting a game in such a way that its persuasive intentions are concealed. Therefore, persuasive intent frames can be either obfuscated or explicit.

Obfuscated and Explicit Persuasive Intent Frames

Obfuscating persuasive intentions of a game in the description of that game can for example be done by distracting players through the chosen genre. To illustrate, Kaufman et al. (2021) decided to present a persuasive game about social biases, called Awkward Moment, as a party game. This activated associations with fun and comedy instead of reactance. Additionally, a game description can either be emphasizing the issue a game targets or its persuasive goal or obfuscate this issue and/or goal by emphasizing a different feature. For example, Kaufman and Flanagan (2015) used neutral and less neutral language in descriptions of the Awkward Moment game, either revealing explicitly that the game dealt with social biases or not. They did so by using a less neutral stereotype frame, where the game was described to deal with awkward social stereotypes, or a more neutral situation frame, where the game was described as dealing with awkward social situations. Participants in their study reacted significantly less desirable to the stereotype frame as compared to

the situation frame, indicating that obfuscating or being explicit about a persuasive game's issue, by using more or less neutral language, can influence player responses and their precedents.

Within the context of this study, this means that a description of a game can be framed as obfuscated or explicit about its persuasive intent. Using an obfuscated persuasive intent frame can be done in three ways, or a combination of those. First, there is the option to present the game as belonging to a genre "whose associated goals or expectations do not include the aim to change players' attitudes, beliefs, or behaviours" (Kaufman et al., 2021, p.79). Secondly, the issue that a persuasive game deals with can be presented in neutral language. Third, the goal of the game can be mentioned in an obfuscated way, using more neutral language. Using an explicit persuasive intent frame would entail explicitly mentioning the genre of persuasive games, the issue dealt with in a game, and/or its goal of persuading players.

It is assumed that persuasive intent frames can influence attitude and selection behaviour. On the one hand, Kaufman and Flanagan (2015) found signs of perceived obtrusiveness negatively affecting precedents of player responses. On the other hand, Jacobs (2017, chapter 8) did not. Both dealt with captive audiences as their samples. Therefore, based on their results, no clear conclusion can be drawn about the role of persuasive intent frames in the selection of a persuasive game for a natural audience. The present study will deal with a more, but not fully, natural audience. The sample will not be forced to play the persuasive game they get presented, which makes them not fully captive, but they do get to see the presentation of the persuasive game in a research setting. Therefore, a decision needs to be made which reasoning to follow and apply.

It might be that when audiences do get the choice to play or not play a persuasive game, only the people who do not perceive the game as obtrusive and thus have low persuasion knowledge start the game. Those who do perceive the game as obtrusive and experience high persuasion knowledge might already opt out as soon as the persuasive intent of the game becomes clear to them, as this might lead to negative attitudes towards playing the game and thus negative selection behaviour. Therefore, the reasoning of Kaufman et al. (2021) and Kaufman and Flanagan (2015) will be followed and applied to this study; it is assumed that a persuasive game description with an obfuscated persuasive intent frame leads to more positive attitudes and a higher preference and thus chance of selection, as compared to a description with an explicit persuasive intent frame, because it reduces the level of perceived obtrusiveness.

As explained, psychological reactance can occur when one suspects to be a target of a persuasive attempt (Friestad & Wright, 1994). The extent to which this happens depends on the perceived obtrusiveness of the persuasive intent, or the extent to which one feels that the content experienced aims to persuade (Jacobs, 2017, chapter 8). This mechanism of perceived obtrusiveness is assumed to impact an individual's attitude towards a persuasive game and the chance he or she will select it instead of an entertainment game. Therefore, perceived obtrusiveness is expected to act as a mediator in the relationship between the persuasive intent frame used in the description of a persuasive game and the subsequent player responses and their precedents. Hereby, it is expected that an obfuscated persuasive intent frame leads to lower perceived obtrusiveness and, therefore, to more positive attitudes, higher interest to play, and an increased likelihood of selection. The other way around, an explicit persuasive intent frame is assumed to lead to higher perceived obtrusiveness and, therefore, to less positive attitudes, lower interest to play, and a decreased likelihood of selection. This leads to the fourth hypothesis:

H4: The effect of a persuasive intent frame on a) attitude, b) interest to play, and c) likelihood that this persuasive game is selected is fully mediated by perceived obtrusiveness.

2.3.3 Combined Effects of Entertainment- and Persuasive Intent Frames

The previous parts have described how the factors entertainment framing and persuasive intent framing can influence player responses and their precedents. However, in this study participants are exposed to a description of a persuasive game that combines the two types of frames (also see the method section). It might therefore be that these two factors also interact with

each other, leading to an interaction effect on player responses and their precedents. Hence, it is worthwhile to explore this possible interaction effect, which may be caused by perceived congruency.

Humans seem to have a preference for congruency, or a correct fit between two factors (Demoulin, 2011; Li et al., 2022). Mandler (1982) explains that an individual's evaluations are partly the result of responding to congruity or incongruity. More specifically, he argues that perceived congruency or just slight incongruity leads to positive evaluations of a place, person, or object, through positive affect or arousal. For example, perceived congruency between ambient elements in a service environment (Matilla & Wirtz, 2001) or between media content and the service environment it is displayed in (Borges et al., 2015) leads to more favourable responses such as satisfaction, positive evaluation and approach behaviour, as opposed to incongruity between these factors. In a different context, perceived congruency between an influencer and the product he or she is endorsing improves consumer perceptions about both the influencer and the brand (Li et al., 2022). Thus, it seems that congruency between two factors can lead to positive evaluations, or attitudes, and consecutive behaviour in various contexts.

Possibly, the entertainment- and persuasive intent frame used in a persuasive game description can also be perceived as being either congruent or incongruent. For example, a hedonic frame focussing on fun, escaping daily life, and feeling compelled to continue playing might be perceived to better fit with an obfuscated description of genre, issue, or goal. Because such an obfuscated persuasive intent frame makes use of more neutral language, the tone of voice might come across as more in line, thus congruent, with the light-hearted hedonic frame. Contrarily, the less neutral tone of voice used in an explicitly described genre, issue or goal might be perceived to match better with eudaimonic frames that focus on meaningfulness, gaining insight and having to make moral choices, as these frames tend to be less light-hearted. On the other hand, it might also be that a eudaimonic frame focussing on finding meaning and gaining insight is perceived to fit better with an obfuscated persuasive intent frame, as the persuasive goal of the game might not be seen as fitting with the self-development goals of an individual player. These speculations result in the following research question:

RQ1: Do entertainment frame and persuasive intent frame interact on a) selection behaviour, and on b) interest to play, c) attitude towards, and d) intention to play the persuasive game?

2.4 Source of Recommendation as a Factor Influencing Player Responses and Precedents

Next to the content-related factor of framing, it might be beneficial to also better understand a more contextual factor that developers and delivery platforms still can have an influence on. Therefore, the concept of and theory behind sources of recommendation will now be further explored and additionally be applied to the context of this study. Hypotheses will be offered about how this final factor is expected to influence intention to play and playing behaviour.

A recommendation about a product or service seems to be an influential source of information (Lin, 2014) that can affect behavioural intentions towards this product or service, including (online) purchase intentions (Ashraf et al., 2017; Chang & Chin, 2010), intentions to visit a tourist destination (Alsheikh et al., 2021) and intentions to use e-books (Lin et al., 2010). According to Chang and Chin (2010), recommendations can aid individuals in gaining the confidence needed to make a decision, especially in an online setting, as they can help to reduce perceived risks about products or services. Since natural audiences are likely to search for, select and play a persuasive game in an online setting, it is considered worthwhile to investigate the effect of recommendations on the intention to play a persuasive game and subsequent playing behaviour.

Recommendations can come from different sources. Some academics (e.g. Lin et al., 2010; Chang & Chin, 2010) distinguish between consumer-dominated interpersonal sources, such as word-of-mouth, marketer-dominated impersonal sources, such as advertising content, and neutral sources, such as expert reviews (Lin et al., 2010) or recommendation systems (Chang & Chin, 2010). In the case of the latter category of sources, neither the market nor the consumer has control. Based on

e.g. Lin (2014), Ashraf et al. (2017) choose to categorize online recommendation sources into system-generated and consumer-generated recommendations. System-generated recommendations are based on data gathered to identify behavioural patterns and specified preferences of individual consumers, as well as on specified preferences of similar consumers. Lin (2014) illustrates this with the example of recommendations such as “others who bought this, also like...”. Consumer-generated recommendations on the other hand are based on subjective evaluations of others (Ashraf et al., 2017) and usually take the form of word-of-mouth (WOM) or electronic word-of-mouth (eWOM) recommendations (Lin, 2014). eWOM is defined as individuals sharing their experiences with certain products or services with others (Luo et al., 2013), for example via customer reviews (Lin, 2014), blogs with opinions and suggestions (Alsheikh et al., 2021) or interactions between families, friends or colleagues, with the aim of gathering product- or service-related information (Lin et al., 2010).

Translated to the context of this study, a persuasive game can be recommended by a delivery platform, based on data (a system-generated recommendation). This could take the form of a message on Itch.io saying “Based on the previous games you played, we think you might also like...”. A persuasive game could also be recommended by a peer, for example via a message on social media (a consumer-generated recommendation).

Previous findings show that the source delivering information in the form of a recommendation can influence the extent to which behavioural intentions increase or decrease. For instance, Lin (2014) and Ashraf et al. (2017) found evidence that consumer-generated recommendations, the source being eWOM, led to a higher increase in behavioural intentions and actual behaviour as compared to system-generated recommendations. Hence, it might be that for persuasive games, consumer-generated recommendations are more effective in increasing behavioural intentions and playing behaviour. Therefore, the following hypothesis is proposed:

H5: A consumer-generated recommendation for a persuasive game results in a higher intention to play this persuasive game compared to a system-generated recommendation.

Source credibility is often used to explain the stronger effects of consumer-generated recommendations on behavioural intentions. It is defined as the extent to which a source is perceived to be trustworthy, to have expertise (Luo et al., 2013) and to be believable (Alsheikh et al., 2021) by a receiver of information. As stipulated by Luo et al. (2013), readers of information, in this case a recommendation, are more likely to accept the point of view expressed in a recommendation if a source is perceived as credible. Therefore, they will also be more likely to adopt the recommendation. eWOM recommendations, made by unknown individuals or by family or friends, are among the most credible sources of information (Alsheikh et al., 2021).

Ashraf et al. (2017) showed that consumer-generated recommendations lead to significantly higher trust than system-generated recommendations, especially in the context of experience goods. They explain experience goods are products for which it is hard to evaluate the performance before consumption, as this evaluation cannot be (solely) based on technical information about features, but rather on personal taste. Examples include books, music, and movies. Based on this definition of experience goods, games could be viewed as experience goods as it is hard to judge their quality before playing, solely based on technical features. It can therefore be expected that source credibility will mediate the effect of the source of a recommendation on intentions to play a persuasive game, which leads to the sixth hypothesis:

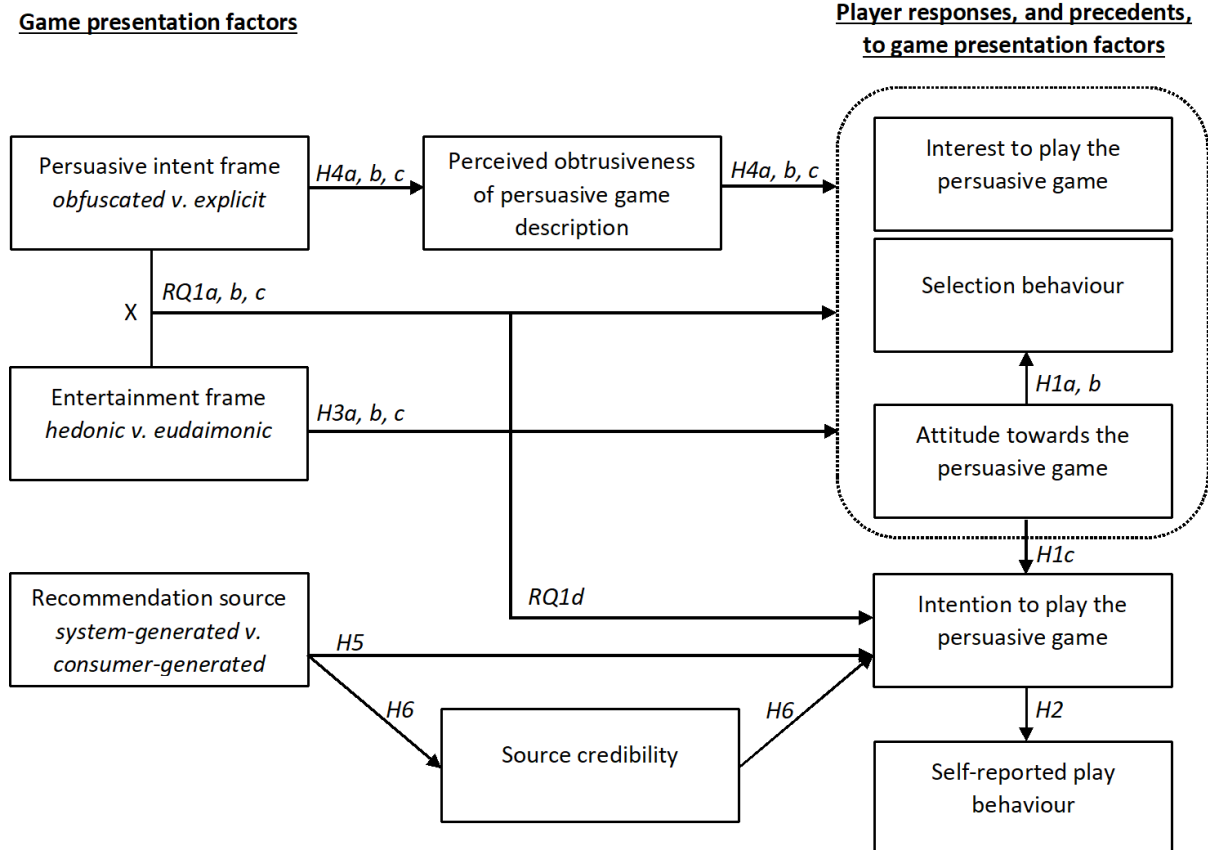
H6: The effect of source of recommendation on intention to play the persuasive game is mediated by source credibility.

2.5 Conceptual Model

Now that the player responses and precedents are defined, the factors that can influence these are proposed and applied to the context, and the hypotheses of this study are formed, it is possible to present the conceptual model used in this study (see Figure 1).

Figure 1

Conceptual model of the influence of game presentation factors on player responses and precedents



To summarize, three game presentation factors are expected to have an influence on player responses and their precedents. The factor framing can be distinguished into entertainment framing and persuasive intent framing. Hedonic entertainment frames, appealing to hedonic motivation, needs and game aspects, focus on fun and enjoyment. Eudaimonic entertainment frames, appealing to eudaimonic motivations, needs and game aspects, focus on meaning and insight. Persuasive intent frames can be further divided into obfuscated and explicit. Obfuscated frames are less open about persuasive intent, by mentioning a neutral genre, issue, or goal of a game. Contrarily, explicit frames are very open about the persuasive intent, by being explicit about the genre, issue, and goal of a game. For the third factor, source of recommendation, a distinction can be made between consumer- and system-generated recommendations. A consumer-generated recommendation can take the form of a (social media) message from a peer, while a system-generated recommendation can take the form of a pop-up message on a gaming platform.

As Figure 1 shows, the entertainment- and persuasive intent frame used in a persuasive game description are assumed to influence attitudes towards this persuasive game and, therefore, interest to play and selection behaviour. In the end, they might also influence playing intentions and playing behaviour. For the influence of persuasive intent frames on the player responses and precedents, perceived obtrusiveness is expected to act as a full mediator. Furthermore, it is expected that entertainment frames and persuasive intent frames will interact on attitude, interest to play, selection behaviour and intention to play. The source recommending a persuasive game is hypothesised to influence intentions to play and, subsequently, playing behaviour. This effect might be mediated by perceived source credibility.

3. Methods

3.1 Research Design

To investigate the questions of this study, the suggested hypotheses have been tested using a 2 [entertainment frame: hedonic versus eudaimonic] x 2 [persuasive intent frame: obfuscated versus explicit] x 2 [source of recommendation: system- versus consumer-generated] between-subject online experiment. Participants were first randomly assigned to one of the entertainment- and persuasive intent-frame conditions, and shown a stimulus manipulated according to that condition. Later, participants were assigned to either one of the source of recommendation conditions and shown a different stimulus, manipulated in line with that condition. Additionally, a short follow-up questionnaire was sent to the participants one week after exposure to the experiment. In this questionnaire, self-reported playing behaviour was measured within subjects. Table 1 presents an overview of the research conditions.

3.2 Participants

Participants were recruited through convenience sampling over social media and by spreading flyers at random locations at the University of Twente. Additionally, bachelor students belonging to the Faculty of Behavioural, Management and Social Sciences were invited to participate in exchange for credits. The only inclusion criterion was being at least 18 years old. In total, 370 people started the experiment. Forty-nine of them did not answer all questions up to at least the manipulation checks and were therefore removed from the dataset. Another 11 respondents were removed, as they spend less than the minimum of 20 seconds on a page which required careful reading of descriptions. They might not have paid sufficient attention to these descriptions to be able to base their answers on these.

As a result, the sample of the experiment consisted of 310 participants, with a mean age of 36.20 years old ($SD = 14.40$). Participants were mostly females (66.5%) and mostly Dutch (75.5%). The remaining 24.5% either held the American nationality (11.9%), the German nationality (4.5%) or another nationality (8.1%). The mean experience with playing games, on a scale from zero (no experience) to five (a lot of experience), laid slightly above the midpoint of three ($M = 3.14$, $SD = 1.24$). Attitude towards this activity, measured on seven-point scales from negative to positive, laid slightly above the midpoint of four ($M = 4.21$, $SD = 1.48$). Participants have been equally divided over the eight conditions, for the exact division see Table 1.

Almost 93% of the participants also participated in the follow-up questionnaire. The sample size for this part of the study amounted to 287 and the (demographic) characteristics remained similar. As none of the Chi-Square tests for independence for nominal variables or the one-way ANOVA tests for scale variables for either sample turned out to be significant, it can be concluded that there were no relationships between the conditions and either of the (demographic) characteristics. Gender seemed to be unequally divided over the conditions and is for transparency included in Table 1. For example, in the first condition 80% of the participants identified as female, while in the seventh condition this was 48.6%. However, as the Chi-Square test revealed an insignificant result ($\chi^2(7, 1) = 12.30$, $p = .091$), this was not a problem influencing the results of this study. This Chi-Square test only included male and female participants, as the group of non-binary participants and those who did not want to share their gender is so little that their expected counts were set to less than 5.

Table 1*The research design and the number of participants and percentage of females per condition*

	Entertainment frame: Hedonic		Entertainment frame: Eudaimonic	
	Source of recommendation: consumer-generated	Source of recommendation: system-generated	Source of recommendation: consumer-generated	Source of recommendation: system-generated
Persuasive intent frame: obfuscated	Condition 1 N = 35 80% female	Condition 2 N = 39 71.8% female	Condition 3 N = 39 64.1% female	Condition 4 N = 42 66.7% female
Persuasive intent frame: explicit	Condition 5 N = 39 57.9% female	Condition 6 N = 43 69% female	Condition 7 N = 35 48.6% female	Condition 8 N = 38 78.4% female

3.3 Stimuli

3.3.1 Target Persuasive Game

A persuasive game needed to be selected based on several criteria. First, one aim of this study was to investigate which condition was most likely to lead to actual play behaviour. Therefore, upon finishing the experiment, participants were provided with the link to a persuasive game. Playing this game, however, happened in their own time. That means that debriefing by the researcher was not possible. Even though participants would not think playing the game was part of the study, the study did encourage them to start playing. For this reason, the theme of the persuasive game could not be too dark or heavy, as this could potentially cause emotional harm to participants. Second, it was of interest to keep the barriers for actual play as low as possible for participants. Trying to minimise as many influences as possible on the decision to either play or not play, it was decided that the game should not have to be downloaded, must be available to play directly in a browser on a laptop or mobile phone, must be free of charge and must require minimal effort in terms of control and time to complete.

The game *Why did the chicken cross the road?* (*WDtCCtR*) by DatJuanDesigner was determined most suitable. A detailed description of the gameplay is found in Appendix A (Itch.io, n.d.). *WDtCCtR* teaches players about the motives for crossing the US-Mexican border that exist among migrant workers and refugees. The main message is that the situation of these two groups is hard; it involves many dilemmas, as well as a lack of understanding and exclusion by the environment. The game strives to change or reinforce players' attitudes towards this situation, by aiming to increase sympathy. This is done by letting players experience what reactions migrant workers and refugees must deal with. Moreover, *WDtCCtR* promotes gathering more information through a charity organisation, as well as donating to a charity.

The selected game is judged as dealing with a controversial topic yet does so in a non-controversial way by making use of the metaphor of a chicken crossing the road. Moreover, the game is situated around the US – Mexican border, while the sample mostly consists of Europeans. Additionally, upon reaching the end, the game offers links to charities that can provide more information about the issue. This could be consolatory for those participants who need that.

3.3.2 Design of Game Presentation Frames

Respondents were shown three pairs of game descriptions. Only the pair which contained the description of *WDtCCtR* was of interest to this study. The other two contained solely entertainment games and served as distractors from the purpose of this study. The description of *WDtCCtR* was manipulated according to one of the four framing conditions. Based on the theoretical framework, the hedonic- and eudaimonic-framed descriptions were designed to appeal to either hedonic or eudaimonic motivations, needs and game aspects. The persuasive intent frames were

designed to be either explicit about or obfuscate the genre of the game, the issue it deals with and the persuasive goal it has.

Through six qualitative pre-test interviews with both males and females from different nationalities, initial descriptions of *WDtCCtR* were tested for usability. The goal was to examine if the descriptions were understandable to pre-test participants and did not lead to any undesired associations. Pre-test participants were asked to read the descriptions and share their thoughts and expectations about the game. This led to changing the word narrative to storyline. Pre-test participants also indicated to find persuasion a difficult word, yet this word was not changed because of its importance to this study. Reading the descriptions did not lead to any undesirable associations. The descriptions of *WDtCCtR* used in this study are presented in Table 2. Transcripts of the pre-test interviews can be found in Appendix B.

Table 2
Descriptions of WDtCCtR per condition







		Persuasive Intent Frame	
		<i>Obfuscated</i>	<i>Explicit</i>
Entertainment Frame	<i>Hedonic</i>	<u>Escape daily life for a bit, playing <i>Why did the chicken cross the road?</i> You must talk to other animals to find the answer to that question. This five-minute adventure game offers an <u>enjoyable experience</u> about work and life struggles. It aims to raise awareness for these struggles. It has <u>a storyline that makes you want to continue playing; you will have fun!</u></u>	<u>Escape daily life for a bit, playing <i>Why did the chicken cross the road?</i> You must talk to other animals to find the answer to that question. This five-minute persuasive game offers an <u>enjoyable experience</u> about work and life struggles of migrant workers and refugees. It aims to increase your sympathy for these struggles. <u>It has a storyline that makes you want to continue playing; you will have fun!</u></u>
	<i>Eudaimonic</i>	<u>Gain some insight, playing <i>Why did the chicken cross the road?</i> You must talk to other animals to find the answer to that question. This five-minute adventure game offers a <u>meaningful experience</u> about work and life struggles. It aims to raise awareness for these struggles. It has <u>a touching storyline; your way of viewing the world will be challenged!</u></u>	<u>Gain some insight, playing <i>Why did the chicken cross the road?</i> You must talk to other animals to find the answer to that question. This five-minute persuasive game offers a <u>meaningful experience</u> about work and life struggles of migrant workers and refugees. It aims to increase your sympathy for these struggles. It has <u>a touching storyline; your way of viewing the world will be challenged!</u></u>

Note. The parts representing entertainment frames are underlined, and the parts representing persuasive intent frames are in bold.

Next to descriptions of the persuasive game, descriptions of the five entertainment games were needed. As it was not necessary for this study to use existing entertainment games, these descriptions were written for fictional games and kept comparable in length. To make sure participants would base their responses on the written descriptions, it was decided that both games

in a pair would be represented by the same image with a different title. Despite this same image, the pre-test interviews showed that pre-test participants were still perceiving the games in a pair as two different games, based on the descriptions. Pre-test participants also indicated that the texts were easy to understand. An overview of the pairs used can be found in Table 3.

Table 3
The three pairs of game descriptions used

	Game A	Game B
Pair 1	 <p>My farm rules</p>	 <p>Life of a farmer</p>
	<p>Always wanted to have your own farm? Play <i>My farm rules</i> and live your dream! In this fun and easy game, you have to maintain your land, take care of your animals, and sell your products. Compare your farm to the farms of your friends and compete for nice prizes. Hours of entertainment guaranteed!</p>	<p>Experience what it is like to work on a farm by playing <i>Life of a farmer</i>. Through exciting challenges and puzzles you will discover if you have what it takes to keep the farm running. Needing only the four arrows on your keyboard, anyone can play this game right away. So, let the fun begin!</p>
Pair 2	 <p>Why did the chicken cross the road?</p>	 <p>Back and forth</p>
	<p>[see Table 2]</p>	<p><i>Back and forth</i> is a game made for your entertainment. You have to get to the other side of a dangerous road and back again as often as you can. With each crossing, you can gain points. But watch out! You have to do so without getting hit by one of the many cars and losing a valuable life. With easy controls, you can play for as long as you like.</p>
Pair 3	 <p>GET OUT OF HERE</p>	 <p>LET'S ESCAPE!</p>
	<p><i>Get out of here</i> is a puzzling game inspired by real-life escape room experiences. You have to find your way out of different locations, by finding the answers to several questions. Doing so will unlock new levels for endless entertainment. You will get addicted!</p>	<p>Discover new worlds in the adventurous game <i>Let's escape!</i> You have to complete various challenges to escape your enemies and being able to flee to a different place. But be careful, there might be new enemies there as well. This intuitive game does not require experience, it is fun for everyone.</p>

3.3.3 Design of Recommendations

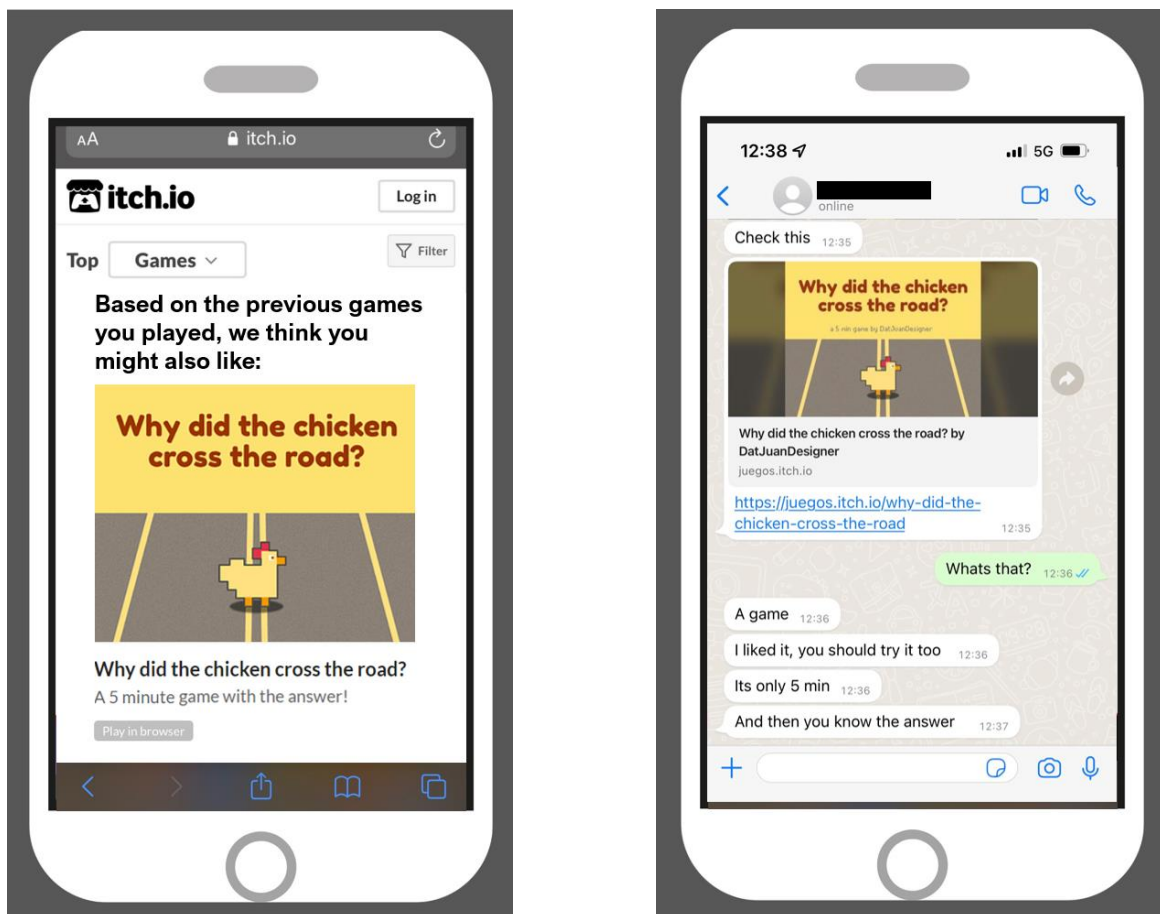
The recommendations of *WDtCCtR* were manipulated to be system- or consumer-generated recommendations. Based on Ashraf et al. (2017) and Lin (2014), the system-generated recommendation was operationalised as the delivery platform Itch.io recommending the persuasive game, based on previous play behaviour. The consumer-generated recommendation was first operationalized as a friend recommending the persuasive game via Facebook. Both recommendations contained the same information about the game.

Both types of recommendations were discussed in the pre-test interviews. After the first two interviews, it became clear that pre-test participants did not perceive the recommendation by a friend on Facebook as a consumer-generated recommendation. Both pre-test participants were convinced that the message was system-generated and not written by a person. To solve this problem, the language used in the Facebook message was changed to be less formal. However, the third interview revealed that the Facebook recommendation was still perceived as being system-generated.

Based on this third pre-test interview, it was decided to operationalise the consumer-generated recommendation as a friend recommending *WDtCCtR* via WhatsApp. This recommendation was shown to the last three participants of the pre-test, who all recognized it as a form of word-of-mouth recommendation. Therefore, it was decided to keep the WhatsApp recommendation for the consumer-generated condition in this study. Figure 2 presents the final recommendations used. Pre-test participants indicated that both were realistic.

Figure 2

Recommendation in the system-generated condition (left) and consumer-generated condition (right)



3.4 Procedure

Participants received a link to a Qualtrics questionnaire to participate in the online experiment, which was available in both English and Dutch. After giving their informed consent, participants were first asked a few demographic questions. Additionally, they were asked to rate their level of English and their experience in playing games, and questions measuring their attitude towards gaming as an activity.

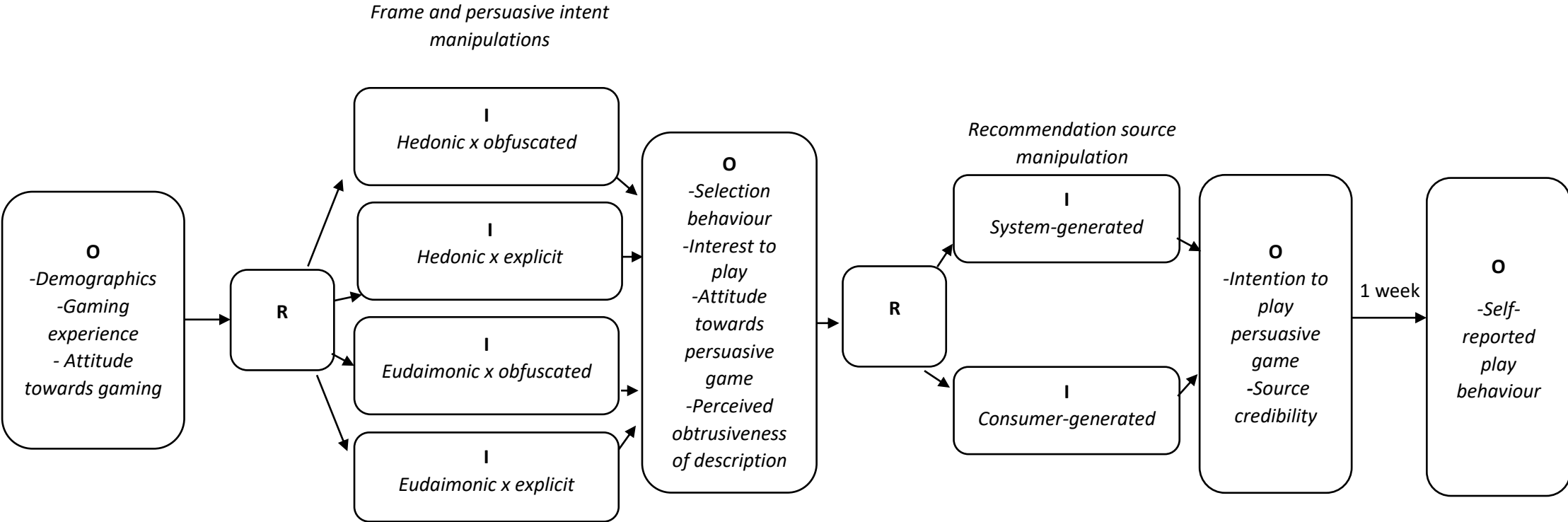
Then, participants were shown three pairs of games and were asked to indicate per pair which game they would prefer to play, as well as their level of interest in each game. The second pair contained the game *WDtCCtR* in one of the four framing conditions. After the three pairs of games, participants were told that a few more questions would follow about one of the games they had just seen and that this game would be selected at random and not based on their previously indicated preference. However, for all participants, the game that was shown a second time was *WDtCCtR*, in the same condition as shown before. They were asked questions measuring their attitude towards the game and the perceived obtrusiveness of the description.

Next, participants were asked to imagine sitting at home on the couch, scrolling through their phones. Depending on the condition, they were told that they either decided to play a game on Itch.io or to have a look at their social media account. In the first case, they were asked to imagine that a system-generated recommendation for *WDtCCtR* appeared on their screens, while in the second case they had to imagine receiving a WhatsApp message from a friend recommending the game. After carefully looking at the recommendation, intention to play and perceived source credibility were measured.

For the last part of the experiment, participants were asked three manipulation check questions and to enter their email address. The email address was needed to send a short follow-up questionnaire after a week and to link the results. Participants were then thanked for their participation in the first part and told that *WDtCCtR* is a real game that can be played on several devices. This message included a link to the game. A similar message was shared via email within 24 hours after finishing the experiment.

In the online follow-up questionnaire, the self-reported playing behaviour of trying to access the game, starting to play the game, and finishing the game was measured using three questions. Additionally, attitude towards the topic of *WDtCCtR* and willingness to help was measured. Then, participants were thanked for their participation and the contact details of the researcher were shared. Figure 3 provides an overview of the study procedure.

Figure 3
Experiment procedure



Note. O is observation, R is randomization, I is intervention

3.5 Measures

3.5.1 Gaming Experience and Attitude

To measure prior experience with gaming, the item by Kosa and Uysal (2021) was rewritten to fit the context of this study: “How experienced would you rate yourself in playing games on a computer, console, tablet or phone?”. This was measured on a five-point scale ranging from no experience at all to a lot of experience. For prior attitude towards games, the items used by Wang and Hollett (2022) to measure global, affective and cognitive attitudes towards physical activity were adapted to the context of this study. On seven-point bipolar adjective scales, participants had to indicate if playing games on a computer/console/tablet/phone to them is something not desirable/desirable, not enjoyable/enjoyable, negative/positive, boring/interesting, and harmful/beneficial.

3.5.2 Selection Behaviour and Interest to Play

To measure selection behaviour, participants were asked for each pair of game descriptions to indicate which of the two games they would select to play. Then, they were asked to indicate to what extent they were interested in playing either one of the games, by sliding a bar between zero (not interested at all) and 100 (very much interested). Only the measurement of interest to play *WDtCCtR* was of interest to this study.

3.5.3 Attitude Towards the Persuasive Game

The attitude towards the persuasive game was measured using five items previously used by Vanwesenbeeck et al. (2017). Participants were asked to indicate on a seven-point semantic differential scale how they felt about the persuasive game, based on the description they had read. The adjectives used were unappealing/appealing, unpleasant/pleasant, dull/dynamic, unattractive/attractive and not enjoyable/enjoyable.

3.5.4 Perceived Obtrusiveness

Perceived obtrusiveness of the persuasive game description was assessed using three of the five items used by Jacobs (2017, chapter 5), which were slightly rewritten to better fit the context of this study. The two items not used were considered not useful to this study, as they were about the perceived obtrusiveness of a questionnaire in addition to the perceived obtrusiveness of a game. Participants were asked to indicate their level of agreement with the statements “The content of the game *Why did the chicken cross the road* has a strong message”, “If I would play the game *Why did the chicken cross the road*, the content would try to persuade me.”, “The content of the game *Why did the chicken cross the road* would be persuading me.”. Additionally, two statements used by Tutaj and van Reijmersdal (2012) to measure understanding of persuasive intent were adapted to fit the context of this study. These were “The aim of the game *Why did the chicken cross the road?* is to influence my opinion” and “The aim of the game *Why did the chicken cross the road?* is to make people feel a certain way about a topic”. All were measured on a seven-point scale, ranging from strongly disagree to strongly agree.

3.5.5 Intention to Play

To measure intention to play, four items by Spears and Singh (2004) were adapted to be about playing a game. These items were measured on a seven-point bipolar scale and entailed: probably would not play/probably would play, have low/high interest in playing, definitely do not intent to play/definitely do intent to play and would definitely not play/would definitely play.

3.5.6 Perceived Source Credibility

Four items previously used by Amelina and Zhu (2016) were used to measure perceived source credibility. Participants were asked to indicate to what extent they thought the source giving them the recommendation was not at all trustworthy/very trustworthy, not at all reliable/very

reliable, not at all sincere/very sincere and not at all honest/very honest. This was measured on 7-point bipolar scales. One more item, namely not at all credible/very credible, was added, based on Filieri et al. (2015).

3.5.7 Playing behaviour

A week after being exposed to the experiment, participants were asked about their playing behaviour after exposure. First, they were asked “In the past week, have you tried to access the game *Why did the chicken cross the road?*, for example by finding it on Google or clicking the link that was sent via email?” with the binary answering options of yes and no. If the answer was yes, a second question was asked: “Have you started to play *Why did the chicken cross the road?*”. Again, the answering options were yes and no. If the answer was yes, a third question was asked, which could be either answered with yes or no: “Have you finished the game *Why did the chicken cross the road?*”.

3.5.8 Post-play Attitudes and Willingness to Help

Furthermore, it was investigated to what extent *WDtCCtR* was effective in influencing attitudes towards refugees and migrant workers, by measuring attitudes towards refugees and migrant workers. This was done using four items previously used by Igartua et al. (2019), based on McConahay et al. (1981), to measure prejudice towards migrants via a seven-point scale (1= strongly disagree, 7= strongly agree). These items, slightly rewritten to fit modern times, were: “In the country that I live in, migrant workers and refugees get more opportunities than they deserve”, “Discrimination against migrant workers and refugees is no longer a problem in the country I live in”, “Migrant workers and refugees are getting too demanding in their push for better treatment” and “Migrant workers and refugees should not impose themselves where they’re not wanted”. Additionally, a feelings thermometer was used to measure attitudes towards migrant workers and refugees, just as Igartua and Cachón-Ramón (2021) did. Participants were asked to indicate on a scale from zero to 100 how they feel about migrant workers and refugees in the country they live in (0=very cold feelings, 100=very warm feelings).

As *WDtCCtR* in the end encourages players to donate to a charity, willingness to help was also assessed to be able to determine the effectiveness of the game. To do so, part of the procedure as followed by van ’t Riet et al. (2018) was employed. Participants were asked to indicate on a seven-point scale how likely they were to perform three specific behaviours (1=very unlikely, 7=very likely). These behaviours were 1) to donate money to a charity helping refugees and migrant workers, 2) to discuss the situation of refugees and migrant workers with their friends or family, and 3) to do volunteer work involving refugees and migrant workers.

3.6 Reliability and Validity

Through a factor analysis using varimax rotation and suppressing small factor loadings coefficients (below 0.4), the validity of the measurements has been assessed. Seven components were identified, with a cumulative explained variance of 77.5%, which is well above the required 50%. As Table 4 shows, all items loaded into the intended component only, except for one item measuring perceived obtrusiveness. However, since that item still loaded highest into the component of perceived obtrusiveness, this is not perceived as problematic. Regarding the reliability of the scales, no problems were found. All scales have a Cronbach’s Alpha well above .70, meaning the internal consistency is sufficient for each and even high (above .90) for some. Therefore, scores on the items belonging to one component were averaged, to obtain a separate scale for each of the variables listed in Table 4.

Table 4*Factor analysis and reliability analysis*

	Components						
	1	2	3	4	5	6	7
Source credibility¹							
<i>The source giving the recommendation above is...</i>							
Not at all honest / very honest	.92						
Not at all sincere / very sincere	.92						
Not at all trustworthy / very trustworthy	.92						
Not at all credible / very credible	.92						
Not at all reliable / very reliable	.91						
Attitude towards the persuasive game¹							
<i>I think the game WDtCCtR is...</i>							
Unattractive / attractive		.89					
Not enjoyable / enjoyable		.86					
Dull / dynamic		.86					
Unappealing / appealing		.86					
Unpleasant / pleasant		.81					
General attitude towards gaming¹							
<i>To me, playing games on a computer, console, tablet, or phone is...</i>							
Boring / interesting			.90				
Not enjoyable / enjoyable			.90				
Negative / positive			.90				
Not desirable / desirable			.87				
Harmful /beneficial			.81				
Intention to play¹							
<i>Based on this recommendation and the earlier read description of WDtCCtR, I...</i>							
Probably would not play / probably would play				.87			
Definitely do not intend to play / definitely do intent to play				.85			
Would definitely not play / would definitely play				.85			
Have low interest in playing / have high interest in playing				.81			

Perceived obtrusiveness²								
The aim is to influence my opinion								.84
The aim is to make people feel a certain way about a topic								.81
The content would try to persuade me								.76
The content has a strong message								.68
The content would be persuading me					.48			.57
Attitude towards migrant workers and refugees²								
Migrant workers and refugees are getting too demanding in their push for better treatment								.82
In the country that I live in, migrant workers and refugees get more opportunities than they deserve								.78
Discrimination against migrant workers and refugees is no longer a problem in the country I live in								.75
Migrant workers and refugees should not impose themselves where they're not wanted								.61
Willingness to help³								
<i>Please indicate how likely it is that you will...</i>								
Do volunteer work involving immigrant workers and refugees								.80
Donate money to a charity helping immigrant workers and refugees								.79
Discuss the situation of immigrant workers and refugees with family and/or friends								.74
	Explained variance:	4.7%	4.4%	4.1%	3.3%	2.9%	2.5%	2.1%
	Eigenvalue	8.61	4.34	3.55	2.78	2.17	1.50	1.07
	Cronbach's α	.97	.94	.94	.97	.82	.79	.77

¹ Measured on a 7-point bipolar scale (negative - positive)

² Measured on a 7-point Likert scale (strongly disagree - strongly agree)

³ Measured on a 7-point Likert scale (very unlikely - very likely)

3.7 Manipulation Checks

Three questions that served as manipulation checks were asked. Participants had to state if the description of *WDtCCtR* that they had read made the game seem more like simple fun (corresponding with a hedonic frame), more like it would make them think (corresponding with a eudaimonic frame), or that they did not know. Moreover, they indicated if it had made the game seem like it possibly wanted to influence them (indicating an obfuscated persuasive intent frame), like it clearly wanted to influence them (indicating an explicit persuasive intent frame) or that they did not know. Regarding the source of recommendation, participants were asked if the recommendation they saw was made by a website offering games (system-generated), a friend (consumer-generated) or that they did not know. Additionally, they were asked to what extent they thought the recommendation looked realistic.

A Chi-Square test for independence was used to investigate whether significant differences between the manipulated stimuli could be found. These tests revealed that participants did not perceive hedonic and eudaimonic frames as significantly different from each other ($X^2(2, 1) = 2.72, p = .257$), and did not perceive obfuscated and explicit frames as significantly different from each other ($X^2(2, 1) = 4.79, p = .092$). This means that participants did not recognize the entertainment- and the persuasive intent frames as intended (for crosstabs for both manipulations, see Tables 5 and 6). Regarding the source of recommendation, the Chi-Square test did reveal a significant difference perceived between consumer- and system-generated recommendations ($X^2(2, 1) = 192.26, p < 0.001$). Participants did recognize the source of recommendation as intended. Both types of recommendations were perceived as sufficiently realistic ($M_{cons} = 4.54, SD = 1.49, M_{sys} = 4.43, SD = 1.47$).

Table 5
Manipulation checks entertainment frame

	Entertainment frame			
	Hedonic		Eudaimonic	
	N	%	N	%
<i>The description I read about WDtCCtR made the game seem...</i>				
As if it would mostly be simple fun	35	22.6%	30	19.7%
As if it would mostly make me think	99	63.9%	109	71.7%
I do not know	21	13.5%	13	8.6%
Total	155	100%	152	100%

Table 6
Manipulation checks persuasive intent frame

	Persuasive intent frame			
	Obfuscated		Explicit	
	N	%	N	%
<i>The description I read about WDtCCtR made the game seem...</i>				
As if it possibly could influence me	70	45.5%	65	42.5%
As if it clearly intended to influence me	37	24%	53	34.6%
I do not know	47	30.5%	35	22.9%
Total	154	100%	153	100%

4. Results

4.1 Descriptive Results

The following section will give an overview of the descriptive results, by describing the percentage divisions, or the means and standard deviations, of the player responses to the presentation of a persuasive game across the conditions of this study. Serving illustrative purposes only, no tests for significance are included yet. In the sections after, inferential statistics will be used to reveal which results are significant and which are not.

Participants in the eudaimonic explicit frame condition were more likely to prefer *WDtCCtR* over the paired entertainment game *Back and forth*, as compared to the other framing conditions. This is the only condition in which more participants opted for *WDtCCtR* (54.8%) than for *Back and forth* (45.2%): for the other three conditions between 42% and 43% of the participants chose *WDtCCtR*. Table 7 reveals that participants in this eudaimonic-explicit-condition indicated perceive the descriptions as most obtrusive. They also showed the highest interest to play and the most positive attitude towards the persuasive game.

Table 7

Descriptive statistics of interest to play, perceived obtrusiveness, attitude towards WDtCCtR across the first four conditions

		Interest to play ¹		Perceived obtrusiveness ²		Attitude ³	
		M	SD	M	SD	M	SD
Hedonic	Obfuscated	37.39	22.67	3.79	1.07	3.73	1.26
	Explicit	33.96	28.70	4.51	1.17	3.66	1.52
Eudaimonic	Obfuscated	31.20	26.38	3.96	1.19	3.44	1.36
	Explicit	43.07	28.88	4.68	1.01	3.99	1.25

Note. The highest means are in bold, the lowest means are in italic bold

¹ Measured on a 100-point sliding bar (not interested at all – very much interested)

² Measured on a 7-point Likert scale (strongly disagree - strongly agree)

³ Measured on a 7-point bipolar scale (negative - positive)

Participants who were shown a eudaimonic-explicit-framed description and a consumer-generated recommendation indicated to have the highest intention to play (see Table 8). Participants in this condition also reported perceiving the source of recommendation as most credible.

Table 8

Descriptive statistics of intention to play and source credibility across the eight conditions

		Intention to play ¹		Source credibility ¹		
		M	SD	M	SD	
Hedonic	Obfuscated	Consumer-generated	4.09	1.49	4.43	1.38
		System-generated	3.16	1.48	3.37	1.33
	Explicit	Consumer-generated	3.69	1.98	4.82	1.40
		System-generated	3.13	1.57	3.44	1.59
Eudaimonic	Obfuscated	Consumer-generated	3.79	1.80	4.76	1.27
		System-generated	2.98	1.68	4.11	1.40
	Explicit	Consumer-generated	4.65	1.44	5.03	1.29
		System-generated	3.37	1.58	3.23	1.37

Note. The highest means are in bold, the lowest means are in italic bold

¹ Measured on a 7-point bipolar scale (negative - positive)

Table 9 shows that 52 of the 287 participants of the follow-up questionnaire indicated to have tried to access the game (18.1%). The participants who were shown a eudaimonic-framed description with an obfuscated persuasive intent frame and a system-generated recommendation said most often to have tried to access the game. Close to 77% of the participants who tried to access the game started to play, and 65% of them reported having finished playing the game.

Table 9

Descriptive statistics of self-reported play behaviour across the eight conditions

		Tried to access					Started playing					Finished playing					
		Yes		No		Total	Yes		No		Total	Yes		No		Total	
		N	%	N	%		N	%	N	%		N	%	N	%		
Hedonic	Obfuscated	Consumer	6	19.4%	25	80.6%	100%	6	100%	0	0%	100%	3	50%	3	50%	100%
		System	4	10.5%	34	89.5%	100%	4	100%	0	0%	100%	4	100%	0	0%	100%
	Explicit	Consumer	7	19.4%	29	80.6%	100%	6	85.7%	1	14.3%	100%	3	50%	3	50%	100%
		System	7	18.4%	31	81.6%	100%	5	71.4%	2	28.6%	100%	3	60%	2	40%	100%
Eudaimonic	Obfuscated	Consumer	6	16.7%	30	83.3%	100%	5	83.3%	1	16.7%	100%	2	40%	3	60%	100%
		System	10	25%	30	75%	100%	6	60%	4	40%	100%	5	83.3%	1	16.7%	100%
	Explicit	Consumer	6	18.3%	27	81.8%	100%	6	100%	0	0%	100%	5	83.3%	1	16.7%	100%
		System	6	17.1%	29	82.9%	100%	2	33.3%	4	66.7%	100%	1	50%	1	50%	100%

4.2 Effects on Selection, Interest, Intention and Playing Behaviour

After investigating the descriptive results, inferential statistics exploring significance were used to test the hypotheses of this study. The following sections will describe the results of these tests.

Hypothesis 1a predicted that attitude towards a persuasive game would be positively related to selection behaviour. Logistic regression has been used to investigate the influence of attitude on the likelihood that respondents selected *WDtCCtR* over an entertainment game. The full model, including attitude as the independent variable, was significant and thus able to differentiate between participants who selected *WDtCCtR* and those who selected the entertainment game ($X^2(1, N = 310) = 46.11, p < .001$). It explained between 13.8% (Cox and Snell R Square) and 18.5% (Nagelkerke R Square) of the variance in selection behaviour and correctly classified 67.7% of the cases. Attitude was a positive predictor of selection behaviour: for each point attitude increased (on a scale from zero to seven), the odds that one selected *WDtCCtR* increased with 86% ($b = 0.62, SE = 0.10, p < .001, \text{Exp}(b) = 1.86$ 95% CI [1.53, 2.27]). Hypothesis 1a is, therefore, accepted

Hypothesis 1b posited that attitude towards the persuasive game would be positively related to interest to play. To assess how well attitude was able to predict interest to play, a linear regression analysis was performed with attitude entered into the model as an independent variable. This model was able to explain 48% of the variance in interest to play ($F(1, 308) = 281.69, p < .001, R^2 = .48$). It showed that attitude is a strong, positive predictor of interest to play ($\beta = .69, b = 13.69, SE = 0.82, p < .001$), leading to hypothesis 1b being accepted.

To test hypothesis 1c, which held that attitude towards the persuasive game would be positively related to intention to play, a second linear regression analysis was performed. This time it was aimed to explore how well the independent variable attitude was able to predict intention to play. The model explained 28% of the variance in intention to play ($F(1, 308) = 118.05, p < .001, R^2 = .28$). Furthermore, it revealed that attitude is a strong, positive predictor of intention to play ($\beta = .53, b = 0.65, SE = 0.53, p < .001$). Consequently, hypothesis 1c is accepted.

The second hypothesis of this study predicted that the intention to play a persuasive game would be positively related to self-reported play behaviour, conceptualized as having tried to access *WDtCCtR*. A logistic regression analysis was performed, to explore the influence of intention to play

on the odds that one tries to access the game. This resulted in a significant full model ($X^2(1, N = 287) = 11.41, p < .001$) that explained between 3.9% (Cox and Snell R Square) and 6.4% (Nagelkerke R Square) of the variance in playing behaviour. It correctly classified 81.9% of the cases. Each point increase in intention to play (on a scale from zero to seven) led to a 38% increase in odds that one attempted to access *WdtCctR* ($b = 0.32, SE = 0.10, p = .001, \text{Exp}(b) = 1.38, 95\% \text{ CI } [1.14, 1.67]$). Therefore, it can be concluded that intention to play is positively related to playing behaviour and hypothesis 2 is accepted.

4.3 Effects of the Entertainment Frame

The third hypothesis of this study was concerned with the difference in effect of a hedonic or a eudaimonic frame on a) attitude towards the persuasive game, b) interest to play the game and c) likelihood that this persuasive game is selected compared to an entertainment game. A MANOVA was performed, including entertainment frame, persuasive intent frame and source as independent variables and interest to play, perceived obtrusiveness, attitude, playing intention, and source credibility as dependent variables, to explore entertainment-frame-exposure differences in player responses and precedents. The multivariate test revealed that the entertainment frame did not have a significant effect on the dependent variables combined ($F(5, 298) = 1.98, p = 0.430, \text{Wilk's } \Lambda = 0.98, \eta^2_p = .02$), meaning that there was no difference between participants who saw a hedonic frame and those who saw a eudaimonic frame for the combination of these variables. The test of between-subject effects, therefore, also showed no significant main effects of entertainment frame on attitude or on interest to play. Hence, hypotheses 3a and 3b are not supported by the findings of this study.

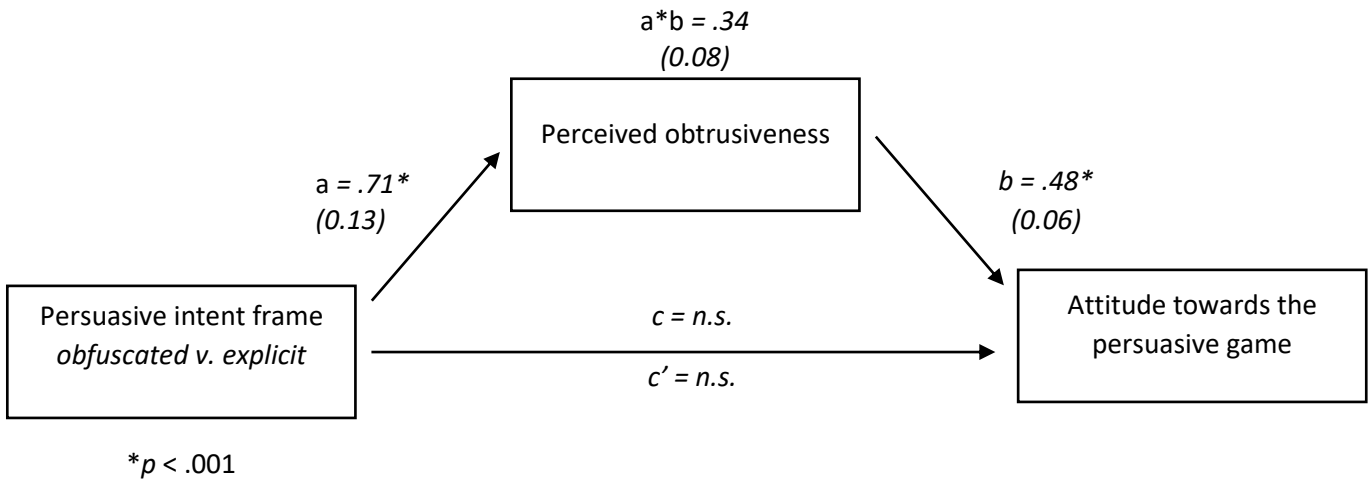
A logistic regression analysis was performed, to explore the influence of entertainment framing on the odds that one would select *WdtCctR* over an entertainment game. The analysis revealed that entertainment frame was not a significant predictor of selection behaviour: the full model was insignificant ($X^2(1, N = 310) = 1.28, p = .258$) and, therefore, the contribution of entertainment frame to this model was insignificant ($b = -0.26, SE b = 0.23, p = .259$). This means that hypothesis 3c is not accepted.

4.4 Effects of the Persuasive Intent Frame

The fourth hypothesis held that the effect of a persuasive intent frame on a) the attitude towards a persuasive game, b) interest to play this persuasive game and c) the likelihood of selection of this persuasive game over an entertainment game would be mediated by perceived obtrusiveness. To test this hypothesis MODEL 4 of PROCESS v.41 by Hayes was employed. Starting with hypothesis 4a, it was investigated whether perceived obtrusiveness mediated the effect of persuasive intent frame on attitude. Figure 4 shows that persuasive intent frame had a statistically significant, positive effect on perceived obtrusiveness ($\beta = .61, b = 0.71, SE b = 0.13, t(1, 308) = 5.63, p < 0.001$). Hereby, an obfuscated persuasive intent frame was perceived as less obtrusive ($M = 3.88, SD = 1.13$) as compared to explicit persuasive intent frame ($M = 4.60, SD = 1.10$). Perceived obtrusiveness in turn had a statistically significant, positive effect on attitude ($\beta = .41, b = 0.48, SE b = 0.06, t(2, 307) = 7.47, p < 0.001$). When looking at the total effect of the persuasive intent frame on attitude towards the persuasive game, this was not significant ($\beta = .18, SE = 0.15, 95\% \text{ CI } [-0.06, 0.55]$). Also, the direct effect of persuasive intent frame on attitude was insignificant ($c' = -0.10, SE = 0.15, 95\% \text{ CI } [-0.39, 0.20]$). The indirect effect of persuasive intent frame on attitude was significant (*partially standardized indirect effect* = 0.25, $SE = 0.06, 95\% \text{ CI } [0.15, 0.37]$). However, the insignificance of both the total and the direct effect led to the conclusion that mediation is not possible and hypothesis 4a cannot be accepted.

Figure 4

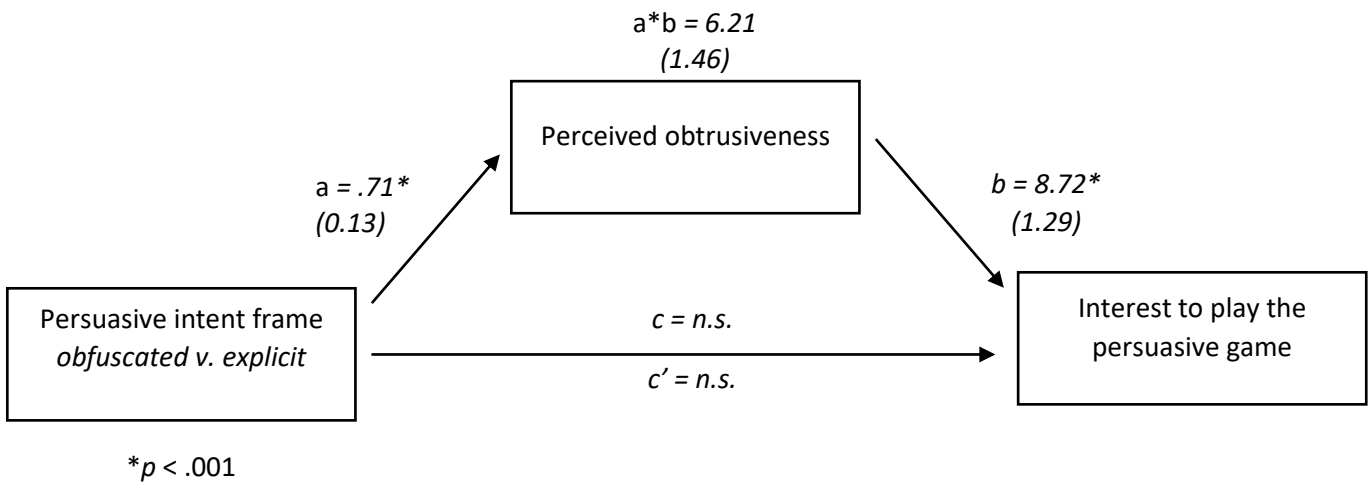
The indirect effect of persuasive intent frame on attitude through perceived obtrusiveness



Second, it was investigated if perceived obtrusiveness mediated the effect of persuasive intent frame on interest to play. Figure 5 shows that perceived obtrusiveness had a positive, statistically significant effect on interest to play ($\beta = .38$, $b = 8.72$, $SE b = 1.29$, $t(2, 307) = 6.76$, $p < 0.001$). The indirect effect of persuasive intent frame on interest to play was significant (*partially standardized indirect effect* = .23, $SE = 0.05$, 95% CI [0.14, 0.35]). Yet both the total effect ($\beta = .15$, $SE = 3.07$, 95% CI [-1.94, 10.13]) and the direct effect ($c' = -2.12$, $SE = 3.01$, 95% CI [-8.04, 3.81]) were insignificant, meaning that there was no evidence for mediation occurring. Therefore, hypothesis 4b is not accepted.

Figure 5

The indirect effect of persuasive intent frame on interest to play through perceived obtrusiveness



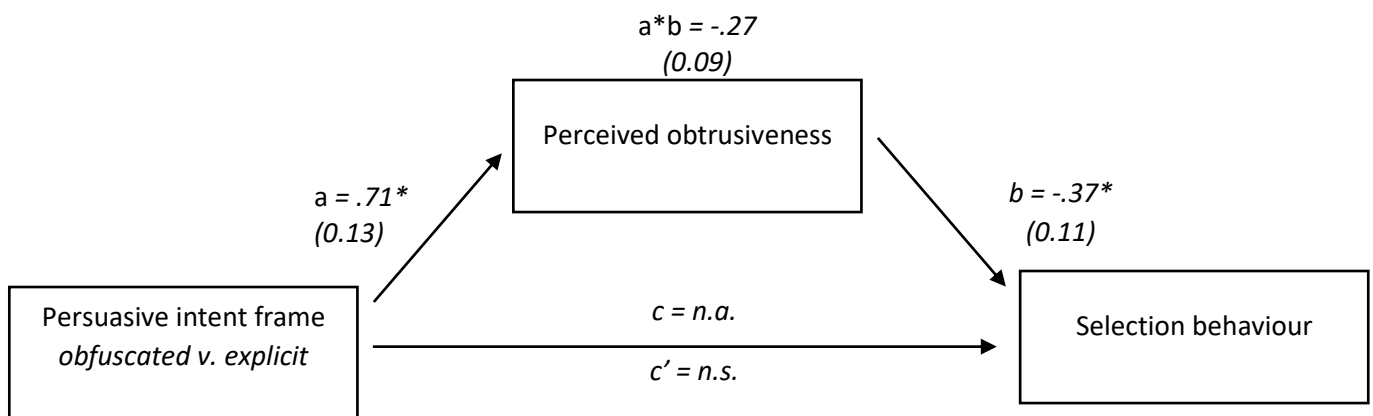
Lastly, it was tested whether perceived obtrusiveness mediated the effect of persuasive intent frame on selection behaviour. As revealed by Figure 6, perceived obtrusiveness had a negative effect on selection behaviour which was significant ($b = -0.37$, $SE b = 0.11$, $Z(2) = -3.40$, $p = 0.007$). To illustrate: participants who chose *WdtCCtR* tended to have significantly higher levels of perceived obtrusiveness ($M = 4.50$, $SD = 1.11$), as compared to those who chose *Back and Forth* ($M = 4.02$, $SD = 1.18$). The model as a whole explained between 4.2% (Cox and Snell R-square) and 5.6% of the variance in selection behaviour. The indirect effect of source of recommendation on intention to play was significant (*indirect effect* = -0.27, $SE = 0.09$, 95% CI [-0.47, -0.12]). The direct effect of persuasive

intent frame on selection behaviour was insignificant ($c' = 0.23$ $SE = 0.24$, 95% CI [-0.45, 0.50], thus mediation is not possible and hypothesis 4c is not accepted.

In conclusion, hypothesis 4 cannot be supported by the findings of this study, as no evidence of perceived obtrusiveness mediating the effect of persuasive intent frame on attitude, interest to play and selection behaviour was found. Instead, evidence for indirect effects of persuasive intent frame on attitude, interest to play and selection behaviour was found. This means that perceived obtrusiveness did have a positive effect on attitude, interest to play and selection behaviour, but it is unclear if this was caused solely by the positive effect that persuasive intent frames had on perceived obtrusiveness.

Figure 6

The indirect effect of persuasive intent frame on selection behaviour through perceived obtrusiveness



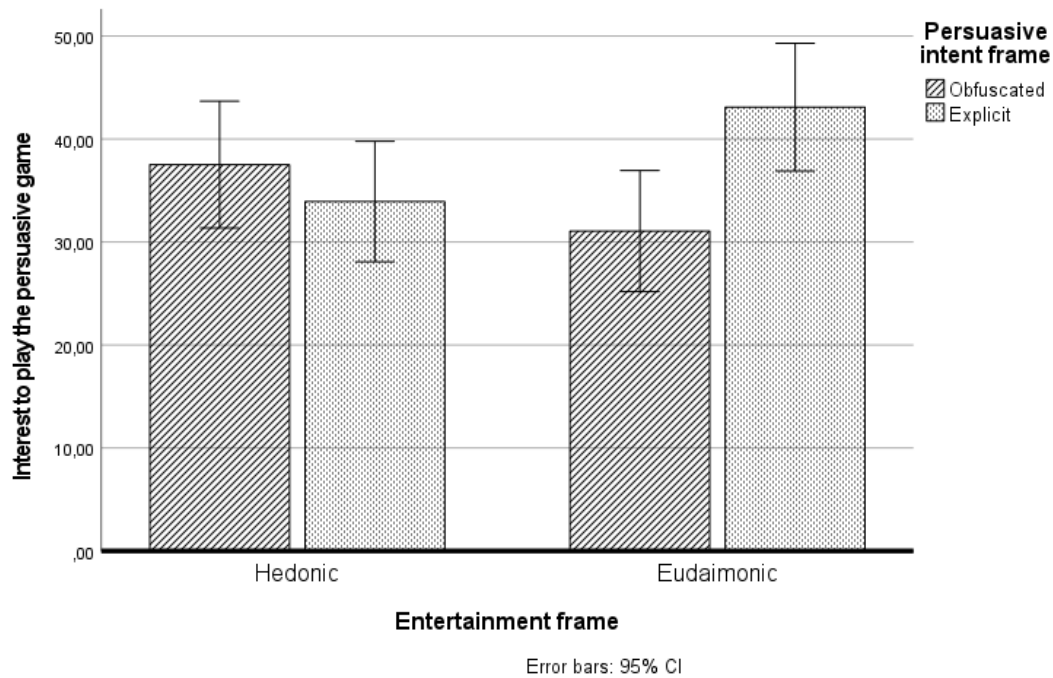
4.5 Interaction Effects Between the Frames

The one research question of this study asked whether there would be an interaction effect between entertainment frame and persuasive intent frame on selection behaviour and on interest to play, attitude towards, and intention to play the persuasive game. To investigate the interaction effect on selection behaviour, a logistic regression analysis has been performed to assess the impact framing had on the chance participants selected *WDtCCtR* instead of an entertainment game. Entertainment frame, persuasive intent frame, and the interaction between them were included as independent variables. The full model containing these three predictors was not significant ($X^2(3, N = 310) = 3.36, p = .340$), meaning that it was not able to distinguish between participants who did and who did not select *WDtCCtR*. This model, therefore, revealed no significant interaction effect between entertainment frame and persuasive intent frame on selection behaviour ($b = 0.43, SE b = 0.46, p = .346$). For this reason, it cannot be concluded that there is an interaction effect between entertainment frame and persuasive intent frame on selection behaviour.

To test for interaction effects between the two types of frames on player responses, and their precedents, towards the presentation of a persuasive game, a MANOVA including a test of between-subject effects for interaction effects was performed. Entertainment frame, persuasive intent frame, and source were included as independent variables and interest to play, perceived obtrusiveness, attitude, playing intention, and source credibility were included as dependent variables. This revealed that the entertainment frame and persuasive intent frame did significantly interact on interest to play ($F(1, 302) = 6.50, p = .011, \eta^2_p = .02$). The bar chart in Figure 7 further explores this interaction effect. As can be seen, the difference in interest to play between obfuscated and explicit frames was smaller for hedonic frames than for eudaimonic frames, meaning that the effect of persuasive intent frame on interest to play differed across the entertainment frames. Game descriptions with eudaimonic entertainment frames led to significantly higher levels of interest to play when the persuasive intent frame was explicit compared to when it was obfuscated. This significant difference was not found for hedonic framed descriptions.

Figure 7

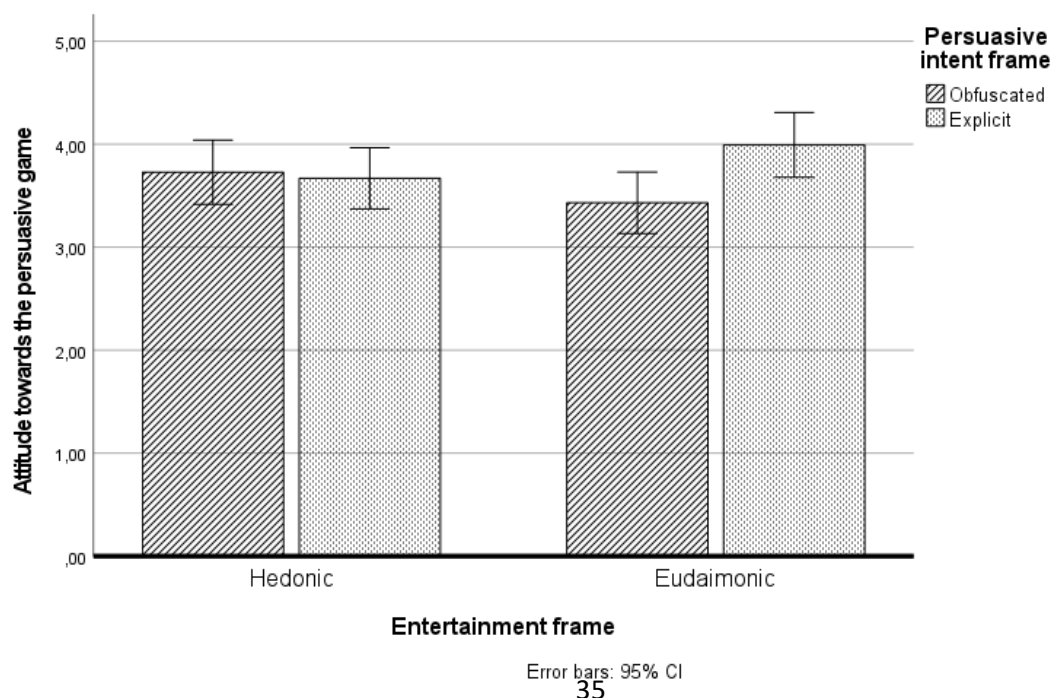
Bar chart of the interaction effect between the frames on interest to play



The test of between-subject effects for interaction effects also showed a small interaction effect between the two frames on attitude towards the persuasive game ($F(1, 302) = 3.99, p = .047, \eta^2_p = .01$). This interaction effect is visible in Figure 8, as the difference in attitude between obfuscated and explicit frames was smaller for hedonic frames than for eudaimonic frames. When the entertainment frame is eudaimonic, explicit persuasive intent frames led to a significantly more positive attitude than obfuscated persuasive intent frames. Yet when the entertainment frame is hedonic, the persuasive intent frame did not seem to matter for attitude towards the persuasive game, as the difference was insignificant.

Figure 8

Bar chart of the interaction effect between the frames on attitude

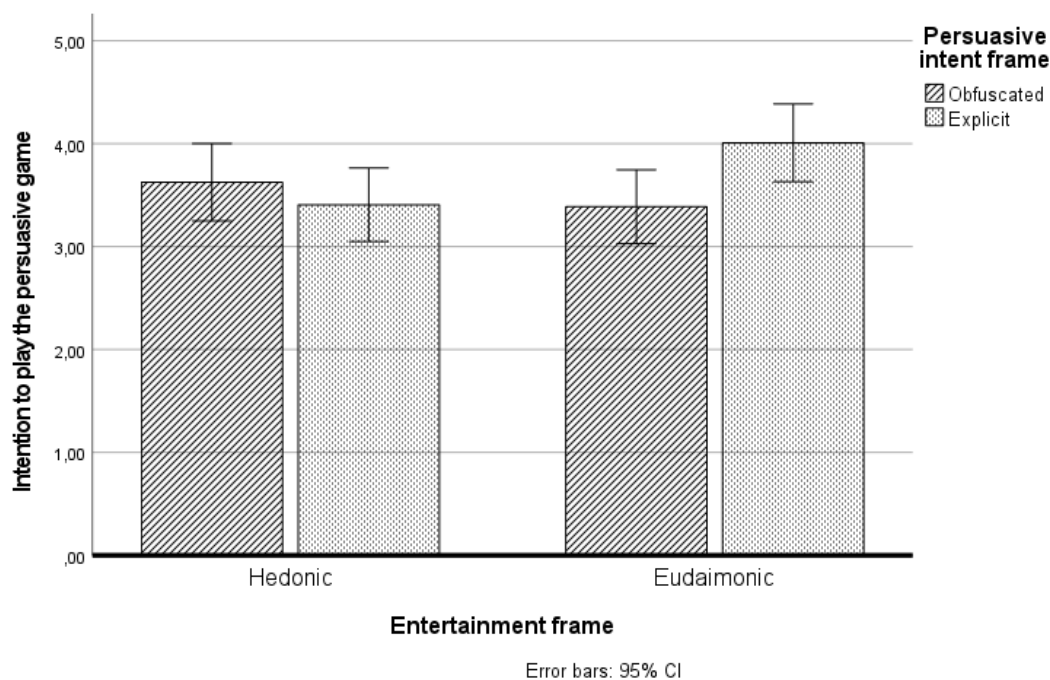


Lastly, a small interaction effect between entertainment- and persuasive intent frames on playing intention was found through the test of between-subject effects for interaction effects ($F(1, 302) = 5.06, p = .025, \eta^2_p = .02$). The difference in intention to play between obfuscated and explicit frames was again smaller for hedonic frames than for eudaimonic frames (see Figure 9). Eudaimonic entertainment frames led to significantly higher intentions to play when the persuasive intent frame was explicit, as compared to when the persuasive intent frame was obfuscated. No such difference was found for hedonic framed descriptions.

Regarding the research question, it can be concluded that there was no interaction effect between entertainment frame and persuasive intent frame on selection behaviour, but these two frames did interact on interest to play, attitude towards, and intention to play the persuasive game. A eudaimonic entertainment frame was more effective when it was combined with an explicit persuasive intent frame. For hedonic entertainment frames, there was no significant difference in effect between an explicit or an obfuscated persuasive intent frame.

Figure 9

Bar chart of the interaction effect between the frames on intention to play

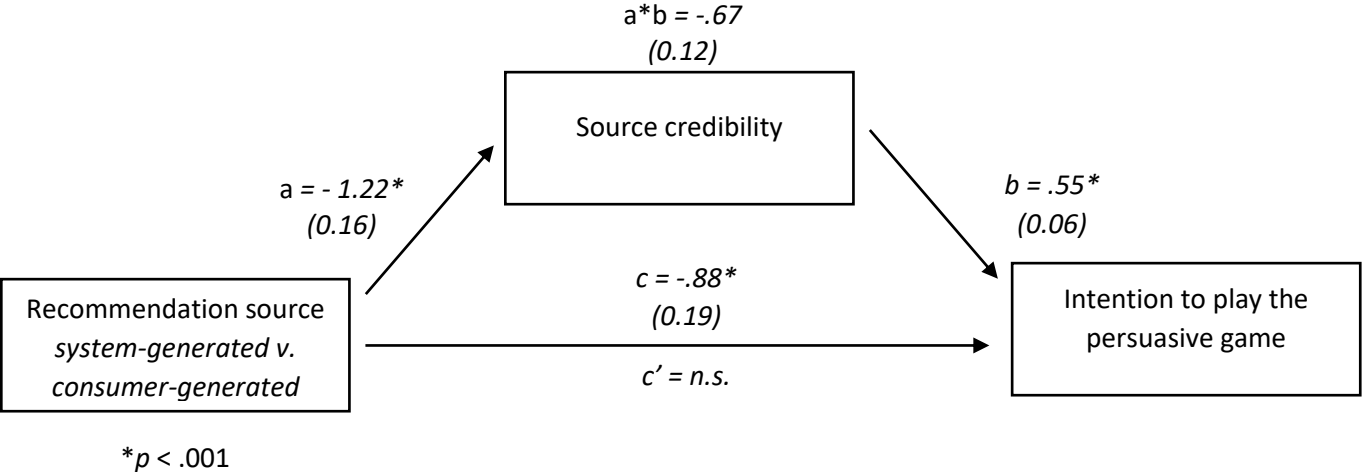


4.6 Effects of Source of Recommendation

Hypothesis 5 assumed that a consumer-generated recommendation would lead to higher playing intentions as compared to a system-generated recommendation. A MANOVA was performed to explore source-exposure differences in player responses and precedents, with entertainment frame, persuasive intent frame and source as independent variables and interest to play, attitude, perceived obtrusiveness, intention to play and source credibility as dependent variables. This revealed that source of recommendation had a large significant combined effect on interest to play, perceived obtrusiveness, attitude, playing intention and source credibility ($F(5, 298) = 14.27, p < 0.001, \text{Wilk's } \Lambda = 0.81, \eta^2_p = .19$). The test of between-subject effects showed that source of recommendation had a significant main effect on playing intention ($F(1, 302) = 23.02, p < 0.001, \eta^2_p = 0.07$). A consumer-generated recommendation led to higher playing intentions ($M = 4.04, SD = 1.73$) than a system-generated recommendation did ($M = 3.15, SD = 1.57$). This can be classified as a moderately sized effect. Therefore, hypothesis 5 is accepted.

To test hypothesis 6, which was concerned with the effect of source of recommendation on playing intentions being mediated by perceived source credibility, Model 4 of PROCESS v4.1 by Hayes was once more adopted. Source of recommendation had a statistically significant, negative effect on perceived source credibility ($\beta = -.80, b = -1.22, SE b = 0.16, t(1, 308) = -7.63, p < 0.001$). Hereby, a consumer-generated recommendation led to a higher perceived source credibility ($M = 4.76, SD = 1.34$), as compared to a system-generated recommendation ($M = 3.55, SD = 1.46$). Source credibility in turn had a positive effect on intention to play which was significant ($\beta = .50, b = 0.55, SE b = 0.06, t(2, 307) = 9.36, p < 0.001$). When looking at the total effect of source of recommendation on intention to play the persuasive game, this was significant ($\beta = -.52, SE = 0.19, 95\% CI [-1.25, -0.52]$). Meanwhile, the direct effect of source of recommendation on intention to play was insignificant ($c' = -0.21, SE = 0.18, 95\% CI [-0.57, 0.14]$). As the indirect effect of source of recommendation on intention to play was significant (*partially standardized indirect effect* = $-.40, SE = 0.07, 95\% CI [-0.54, -0.27]$) there was enough evidence to assume that this relationship was fully mediated by perceived source credibility (see Figure 10). Therefore, hypothesis 6 is accepted.

Figure 10
Mediation model of the relationship between recommendation source and intention to play



4.7 Overview of Results of Tested Hypotheses

After conducting the tests and analyses described above, it is now possible to give an overview of the results of the tested hypotheses of this study (see Table 10). None of the hypotheses concerning the effect of entertainment frames or the hypotheses predicting a mediating role for perceived obtrusiveness could be supported by this study.

Table 10*Overview of the tested hypotheses*

	Hypothesis	Result
H1	<i>Attitude towards a persuasive game is positively related to</i>	
	a selection behaviour	Accepted
	b interest to play the persuasive game	Accepted
	c intentions to play the persuasive game	Accepted
H2	Intention to play a persuasive game is positively related to play behaviour	Accepted
H3	<i>A persuasive game description with a eudaimonic (hedonic) entertainment frame leads to</i>	
	a more (less) positive attitudes towards this persuasive game	Not accepted
	b higher (lower) interest to play this persuasive game	Not accepted
	c higher (lower) likelihood that this persuasive game is selected compared to an entertainment game	Not accepted
H4	<i>The effect of a persuasive intent frame on</i>	
	a attitude towards the persuasive game is mediated by perceived obtrusiveness	Not accepted
	b interest to play the persuasive game is mediated by perceived obtrusiveness	Not accepted
	c the likelihood that this persuasive game is selected is mediated by perceived obtrusiveness	Not accepted
H5	A consumer-generated recommendation for a persuasive game results in a higher intention to play this persuasive game compared to a system-generated recommendation.	Accepted
H6	The effect of source of recommendation on intention to play the persuasive game is mediated by source credibility.	Accepted
RQ	<i>Do entertainment frame and persuasive intent frame interact on</i>	
	a selection behaviour	No
	d interest to play the persuasive game	Yes
	c attitude towards the persuasive game	Yes
	d intention to play the persuasive game	Yes

4.8 Additional Analyses

Until this point, confirmatory analyses needed to test the hypotheses and research question of this study have been performed. These analyses and their outcomes sometimes gave reason to perform additional exploratory analyses. The following section will describe these reasons, as well as the carried out additional analyses and their results.

4.8.1 Controlling for Other Variables

The first hypothesis of this study was about attitude predicting selection behaviour, interest to play, and intention to play; the second hypothesis was about intention to play predicting playing behaviour. The logistic- and linear-regression analyses performed to test these hypotheses only included one independent variable at a time and, therefore, painted a very simplistic picture of reality. Nevertheless, there might be more variables than attitude or intention to play that influence the named dependent variables. Therefore, these analyses have been repeated, including all relevant independent variables, to investigate if the effects of attitude and intention to play would hold after controlling for other variables. The cases in which the effects changed or disappeared will be discussed now, as these paint a more complete picture of reality than the confirmatory analyses did. In turn, this helps to better understand and interpret the confirmatory results, as well as to provide more useful and effective practical advice.

A linear regression analysis was performed to determine how well the independent variables entertainment frame, persuasive intent frame, perceived obtrusiveness, attitude, interest to play, source of recommendation, and source credibility, were able to predict intention to play a persuasive game. The goal was to investigate the ability of attitude to predict intention to play, as proposed by hypothesis 1c, after controlling for other variables. The results showed that a model which included these variables explained 52% of the variance in intention to play the persuasive game ($F(7, 302) = 47.12, p < .001, R^2 = .52$). This is an increase of 24% as compared to a model that only included attitude as an independent variable. Attitude, interest to play, source of recommendation and source credibility made a significant contribution to the model. The strongest contribution was made by source credibility ($\beta = .37, b = 0.42, SE = 0.05, p < .001$), which made it a moderate positive predictor of intention to play when controlling for the other included independent variables. Interest to play ($\beta = .29, b = 0.02, SE = 0.00, p < .001$) and attitude ($\beta = .22, b = 0.28, SE = 0.07, p < .001$) were weak positive predictors of intention to play, while source of recommendation was a weak negative predictor ($\beta = -.12, b = -0.39, SE = 0.15, p = .009$). The results showed that other variables had a stronger influence on intention to play than attitude had and that the strength of attitude as a predictor decreased from strong to weak, after controlling for other variables.

The confirmatory analysis for hypothesis 2 included only intention to play as a predictor of playing behaviour. To explore all variables affecting the odds that participants had indicated having tried to access the game, a logistic regression analysis was used. Entertainment frame, persuasive intent frame, perceived obtrusiveness, interest to play, attitude, intention to play, source of recommendation, and source credibility were included in the model as predictors. This resulted in a significant full model ($X^2(8, N = 287) = 27.83, p < .001$), that was better in explaining the variance in playing behaviour than a model which solely included intention to play as a predictor: between 9.2% (Cox and Snell R Square) and 15.1% (Nagelkerke R Square). It correctly classified 82.2% of the cases. The ability of intention to play to predict playing behaviour disappeared after controlling for other variables, as only interest to play made a significant contribution to the model ($b = 0.03, SE = 0.01, p = .007$) and thus predicted trying to access the game. The odds ratio of 1.03 implied that one point increase in interest to play (on a scale from zero to 100) was associated with a 3% increase in odds that someone tried to access *WdtCCtR* (Exp (b) = 1.03, 95% CI [1.02, 1.05]). The results showed that interest to play was a more robust predictor of playing behaviour than intention to play. This painted a picture more reflective of a real-life game setting, as multiple influences were controlled for.

However, in real-life settings, personal characteristics could also affect player responses. Yet none of the exploratory analyses included personal characteristics of respondents as predictors. Therefore, the abovementioned analyses were once more repeated, to explore the additional effects of age, experience with gaming, and attitude towards gaming as an activity. The results showed that the significant predictor of playing behaviour changed once more; from intention to play to interest to play, it now changed to attitude towards gaming. Because this result can have practical implications, it will now be described in more detail.

A logistic regression analysis included entertainment frame, persuasive intent frame, source of recommendation, interest to play, perceived obtrusiveness, attitude towards the persuasive game, intention to play, and source credibility as predictors of trying to access *WdtCCtR* again, as well as attitude towards gaming as an activity, experience with gaming and age. The results showed that the full model was significant ($X^2(11, N = 287) = 35.75, p < .001$) and thus was able to distinguish between those who did try to access the game and those who did not. As a whole, the model explained between 11.7% (Cox and Snell R Square) and 19.1% (Nagelkerke R Square) of the variance in playing behaviour and correctly classified 83.3% of the cases. Notably, interest to play no longer significantly contributed to the model, yet approached significance ($b = 0.02, SE = .01, p = .059$). Instead, attitude towards gaming as an activity became the sole significant contributor ($b = 0.40, SE = .18, p = .024$) predicting the reporting of having tried to access the game. The odds ratio was 1.50, meaning that for each point increase in attitude towards gaming as an activity (on a scale from one to seven), participants were 50% more likely to report having tried to access *WdtCCtR* (Exp (b) = 1.50,

95% CI [1.06, 2.13]). This result revealed that attitude towards gaming as an activity is a more robust predictor of playing behaviour than interest to play.

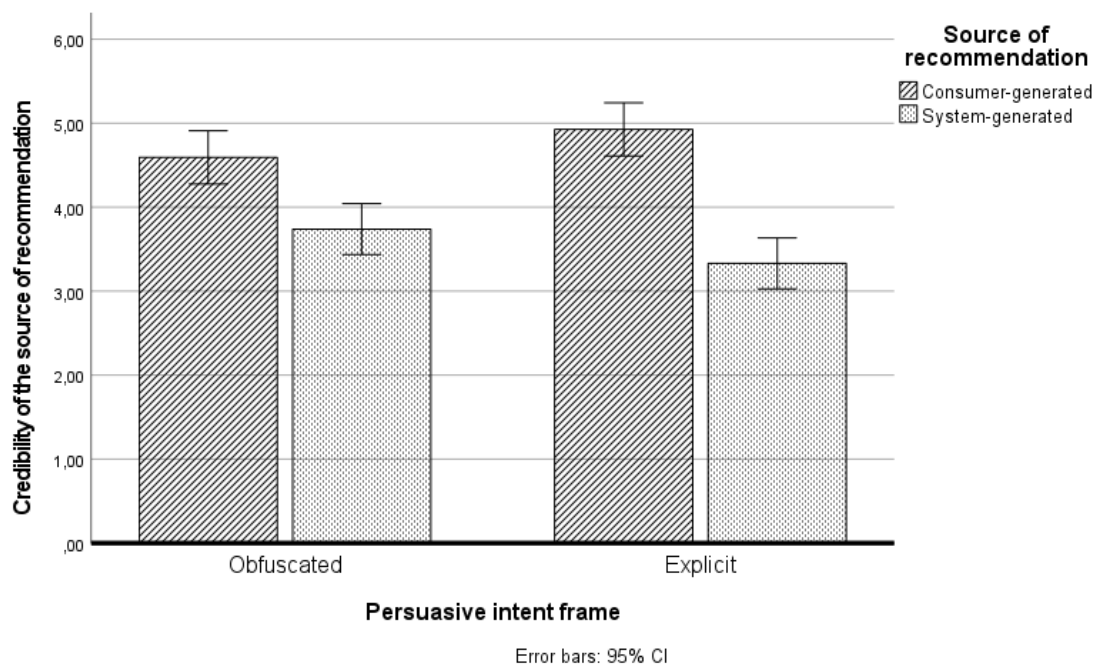
4.8.2 Exploring an Unexpected Interaction Effect

The confirmatory analyses on the effect of source of recommendation showed that consumer-generated recommendations led to higher intentions to play than system-generated recommendations. This effect was mediated by source credibility. Unexpectedly, a significant interaction effect between persuasive intent frame and source of recommendation on source credibility was found while performing confirmatory analyses ($F(1, 302) = 5.52, p = .019, \eta^2_p = .02$). As this interaction effect helps, in the discussion section, to further clarify how consumer-generated recommendations led to higher source credibility and, therefore, to higher intentions to play, it will be considered now.

Figure 11 reveals that for both an obfuscated and an explicit persuasive intent frame, a consumer-generated recommendation led to significant increases in source credibility compared to a system-generated recommendation. The effect of the source of recommendation was amplified when the persuasive intent frame was explicit; the difference between the two types of sources was larger for explicit frames than it was for obfuscated frames. It needs to be kept in mind that the size of this interaction effect is considered small.

Figure 11

Bar chart of the interaction effect between source of recommendation and persuasive intent frame on credibility



4.8.4 Exploring Game Effectiveness

Because this study involved participants playing a persuasive game, it provided an opportunity to test the effectiveness of this game in changing player attitudes towards the issue involved. As this contributes to the ongoing validation of persuasive games, tests to compare means between groups were used to see if *WDtCCtR* could effectively change player attitudes towards its topic. Based on the results of this study, it cannot be concluded that *WDtCCtR* was effective in changing players' attitudes towards the situation of migrant workers and refugees. Two-sample t-tests revealed there was no significant difference between participants who did finish the game and who did not finish the game in the attitude towards migrant workers and refugees ($t(285) = -0.35, p$

= .365), the indicated warmth of feelings towards these groups ($t(185) = 0.23, p = .408$), or the willingness to help these groups ($t(285) = -0.16, p = .436$).

4.8.5 Exploring Perceptions of the Game's Issue

The confirmatory analyses showed that, unexpectedly, perceived obtrusiveness had a positive effect on attitude, interest to play, and selection behaviour. Possibly, this was the case because participants of this study perceived the issue dealt with in *WDtCCtR* as non-sensitive. To investigate this further, the perception of the issue by participants was explored by looking at descriptive statistics. For the sample as a whole, it can be stated that on a scale from one (very positive) to seven (very negative), the attitude towards the situation of migrant workers and refugees was mostly positive. Almost 72% of the participants scored a three or lower (mostly positive) and 1.4% scored a five or higher (mostly negative). This is also true for the willingness to help; on a scale from one (not willing) to seven (very willing), 46.3% of the participants scored a five or higher (mostly willing) and 16% scored a three or lower (mostly unwilling). On a scale from zero (cold) to 100 (warm), participants mostly indicated having quite warm feelings towards migrant workers and refugees ($M = 70.55, SD = 15.65$). Of all participants, 15% scored a 50 or lower, meaning that 85% scored above 50 and has more warm than cold feelings towards migrant workers and refugees. These descriptive results showed that, within the sample, participants in general had a positive perception of the issue dealt with in *WDtCCtR*.

5. Discussion

5.1 Discussion of Results

This study aimed to investigate which content- and context-related factors influence player responses, and their precedents, to the presentation of a persuasive game and how they do so. While not all results were significant, they did reveal helpful information about how players could be persuaded to play persuasive games. These results will now be discussed, starting with the findings regarding the effects on selection behaviour, interest to play, intention to play and playing behaviour.

5.1.1 The Intention-Behaviour gap

In line with the Theory of Planned Behaviour (Ajzen, 1991), attitude towards *WDtCCtR* was a positive predictor of this game being selected and of intention to play. As hypothesized, interest to play also increased with a more positive attitude. The Theory of Planned Behaviour furthermore states that behavioural intentions are positively related to actual behaviour. It was indeed found that intention to play positively predicts playing behaviour in the form of trying to access the game.

However, an additional multiple logistic regression showed that intention to play lost its ability to predict playing behaviour when the effects of other variables were taken into account. An explanation might be that there is an intention-behaviour gap, or a failure to move from intentions to actions (Faries, 2016). Intention-behaviour gaps are prevalent in many behavioural contexts, such as supporting charities (Nguyen et al., 2022), ethical consumption (Carrington et al., 2010), and various health-related behaviours (e.g. Allom et al., 2013; Arigo et al., 2022; Faries, 2016). Several reasons are found for this. For instance, individuals with intentions to perform certain behaviour do not follow through because of time and/or effort constraints (Nguyen et al., 2022). Or the situational context, such as the time and space in which something is presented, causes a failure to act on intentions (Carrington et al., 2010). This might also have been the case for the study at present. Participants who had intentions to play *WDtCCtR* formed these intentions while being in the middle of an experiment. Possibly, they did not have the time to follow-up on these intentions at the moment the link to this game was presented to them, due to, for example, other activities planned. It is plausible that one might have forgotten about visiting the link at a later moment or postponed this for over a week. The difference in timing between intention and potential behaviour might, therefore, have caused an intention-behaviour gap.

On the other hand, the intention-behaviour gap also holds that people who do not intend to do something end up doing this anyway; behavioural intention measures sometimes underestimate behaviour (Nguyen et al., 2022). This means that some participants with low playing intentions did end up trying to access the persuasive game *WDtCCtR*. Nguyen et al. (2022) describe how such behaviour can mostly be explained by extrinsic factors. Examples include an increase in awareness around a topic that resonates with someone and intrinsic motivations such as feeling empathy. It could be that a description of *WDtCCtR* caused a heightened awareness of the issue described (depending on the persuasive intent frame). This heightened awareness might not immediately have led to an increase in playing intentions, yet it could have had a delayed effect. For instance, when confronted with the issue again later, participants might have perceived this issue as important. Upon receiving the link to *WDtCCtR* 24 hours later, this delayed perception of importance could have prompted participants to try to access the game, despite their expressed low intentions to do so. Similarly, empathy with the issue described might also have acted as a delayed motivator to try and access the game, instead of an instant increaser of intentions.

The delayed effects possibly also explain why interest to play was a more robust predictor of playing behaviour than intention to play. Possibly, this was the case because respondents interested in the game elaborated on the game's presentation more. This elaboration could have led to the delayed responses of a heightened awareness and feelings of empathy, which could explain why this group was more likely to try to access *WDtCCtR* than less interested respondents. Therefore, it might

be more beneficial to focus on increasing interest to play than on increasing intentions to play when promoting a persuasive game.

5.1.2 Implicit Effects of Framing

The effects of two types of frames on player responses, and their precedents, towards the presentation of a persuasive game have been examined. Neither the entertainment frames nor the persuasive intent frames used in this study had a direct effect. This might be due to the manipulations of these frames not being recognized by participants. The vast majority of the participants, regardless of the entertainment frame condition, indicated that the read description of *WDtCCtR* made the game seem as if it would mostly make them think. Less than a quarter of participants exposed to a hedonic frame reported perceiving the game as offering simple fun, indicating that this frame was hard to recognize as intended for participants. This could be because, in each description, a persuasive intent frame was also always adopted. It can be speculated that this has confused participants because even if the persuasive intent frame was obfuscated, the description would still mention that *WDtCCtR* wants to raise awareness for an issue. Therefore, regardless of the entertainment frame, participants might have mostly thought *WDtCCtR* aims to make them think. Concerning the persuasive intent frame, participants could not recognize if the description read made the game seem as if it could possibly influence them or clearly intended to do so. This lack of recognition might have prevented the two types of frames from having a direct effect on player responses and precedents.

Despite the lack of direct effects, it seems that both frames did influence participants implicitly and, therefore, affected player responses and precedents. There are a few reasons to assume this. For one, the results revealed expected interaction effects between the two frames. Previous studies suggest that perceived congruency between two factors improves attitudes and leads to desirable (behavioural) outcomes. For example, Vashisht and Chauhan (2017) found that if in an advergaming the brand advertised was perceived as fitting with the context of the advergaming, or if the game-product congruence was high, this led to significantly more positive attitudes towards the brand advertised. This can be explained by perceived congruency leading to positive affect or arousal, which in turn leads to positive evaluations or attitudes and subsequent behaviour (Mandler, 1982). This is also implied by the results of this study: the two types of frames interacted on attitude, interest to play, and playing intention. Thus, participants apparently did unconsciously process and perceive the two types of frames differently, depending on the combination presented. Based on these three interactions, it can be concluded that a eudaimonic entertainment frame was most effective when combined with an explicit persuasive intent frame, while for hedonic entertainment frames it did not matter which persuasive intent frame it was combined with.

A eudaimonic entertainment frame was thus perceived as more congruent with an explicit persuasive intent frame than with an obfuscated one. This combination led to significantly more positive attitudes and higher levels of interest and intention to play. It can be theorized that the tone of voice and described gratifications in these two types of frames were perceived as matching. The explicit persuasive intent frame used a less neutral tone of voice, by being explicit about the genre, issue, and goal of a persuasive game. A eudaimonic entertainment frame focussed on gratifications such as meaningfulness and gaining insight. Speculatively, this could have been perceived as a good match, as the explicit frame made it very clear why the game would lead to meaningful experiences and opportunities for gaining insight. An obfuscated frame could have been perceived as being less clear about this, which might have led participants to wonder why and how a game could be meaning- and insightful, or even to feelings of contradiction or of the description being incomplete. These thoughts and feelings might clarify why the combination of a eudaimonic frame with an obfuscated frame was less effective; the lower levels of perceived congruency might have led to less positive affect or arousal. This would explain why subsequent attitudes and behavioural intentions were less effectively influenced.

The two types of frames were not found to be interacting on selection behaviour. One possible explanation for this is that the interaction might only have had an indirect effect on

selection behaviour. Attitude is the only predictor of selection behaviour found in this study. Possibly, framing does influence selection behaviour through its interaction effect on attitude. However, the results of this study only provide evidence that the combination of one of the entertainment frames with one of the persuasive intent frames did not have a significant influence on selection behaviour.

A second reason to assume that persuasive intent frame had an implicit effect on participants, is that the results showed that perceived obtrusiveness differed between explicit and obfuscated frames. Therefore, participants must have perceived obfuscated and explicit persuasive intent frames in different ways. Because a persuasive intent frame did not have a main effect on attitude, interest to play or selection behaviour, perceived obtrusiveness could not act as a mediator of these (non-existing) relationships. However, positive relationships between perceived obtrusiveness and all three dependent variables mentioned were found. Although it is not clear if these relationships were caused by the influence of persuasive intent frames on perceived obtrusiveness, they still suggest it is worthwhile to try to increase perceived obtrusiveness. The results also suggest that explicit persuasive intent frames are a good option to do so, since, as expected, these led to higher levels of perceived obtrusiveness.

Surprisingly, the results, as said, showed that an increase in perceived obtrusiveness had a positive instead of negative effect on attitude, interest and selection behaviour. This is contradicting the reasoning of Kaufman et al. (2021) and Kaufman and Flanagan (2015). A potential explanation might be that the topic of *WDtCCtR* was not perceived as one of sensitive nature by the participants. Kaufman et al. (2021) explain how it is especially advisable to not be explicit in content when this content deals with a topic that is uncomfortable, psychologically threatening or opposing one's existing attitude. Participants' exact perceptions of the topic treated in *WDtCCtR* have not been measured, yet the attitude towards refugees and migrant workers has been. For this specific sample, participants in general had a quite positive attitude towards the topic. This could mean that the content of the explicitly framed descriptions was not perceived as counter-attitudinal, which led to perceived obtrusiveness becoming innocuous to player responses, and their precedents, towards the presentation of *WDtCCtR*. As the content of the persuasive game descriptions likely was in line with existing attitudes for most participants, and thus was probably not experienced as threatening or uncomfortable, the resulting heightened levels of perceived obtrusiveness might not have been evaluated as harmful or offensive. This could explain why perceived obtrusiveness did not have the harmful effect on player responses and precedents as described by Kaufman et al. (2021).

Contradicting initial expectations, the results of this study corroborate the conclusion of Jacobs (2017, chapter 8); "obtrusiveness of persuasive intent should not be a cause for concern for persuasive game designers" (p. 186). He found no signs of psychological reactance behaviours in participants with high scores on perceived obtrusiveness, which is similar to what was found in the current study; an increase in perceived obtrusiveness did not lead to a more negative attitude, a lower interest to play and a lower likelihood of selection. Instead, the perceived obtrusiveness of a description of a persuasive game had a positive effect on these player responses and precedents.

5.1.3 The Credibility of Consumer-generated Recommendations

In line with previous findings by Ashraf et al. (2017, Chang and Chin (2010) and Z. Lin (2014), and extending these to the context of persuasive games, consumer-generated recommendations indeed led to higher intentions to play. This effect was mediated by source credibility and as expected higher source credibility led to higher intentions. A reason could be that a source perceived as credible increases the likelihood of accepting a recommendation (Luo et al., 2013), which could increase intentions to play.

A consumer-generated recommendation resulted in higher source credibility than a system-generated recommendation. The findings of Ashraf et al. (2017) are, therefore, further validated; just as with other experience goods, trust in a source of recommendation becomes an important factor influencing evaluations of a persuasive game, as these evaluations are mostly based on personal taste rather than on technical features. A recommendation provided by a friend via WhatsApp was

perceived as more credible, possibly leading to readers being more likely to accept the recommendation (Luo et al., 2013). The unexpected interaction effect between persuasive intent frame and source of recommendation further explains how this could work in the context of persuasive games.

As the interaction effect showed, a consumer-generated recommendation increased source credibility for both an explicit and an obfuscated persuasive intent frame. Yet, the difference in source credibility between a consumer- and a system-generated recommendation was larger for explicit frames. A description using an explicit frame, followed by a recommendation by a friend, thus led to higher source credibility than a recommendation made by the delivery platform. This could be due to the higher levels of perceived obtrusiveness that are associated with explicit frames. According to Friestad and Wright (1994), most individuals will experience negative arousal when they think their agency is being threatened. If a description of a persuasive game is perceived as obtrusive, which is most true for explicitly framed descriptions, this might lead to feelings of personal freedom regarding doing and thinking being threatened. Possibly, a friend is then perceived as more trustworthy, as friends might be judged to be more capable of taking these feelings away by making a recommendation than a delivery platform is. The difference in trust in a friend and in a delivery platform might therefore increase with explicit frames. With an obfuscated frame, an individual's agency might be less threatened, making the difference in source credibility smaller between the two types of persuasive intent frames; trust in source of recommendation then might play a smaller role.

5.2 Theoretical Implications

This study contributes to the body of knowledge by providing insights into which factors influence player responses, and their precedents, towards the presentation of a persuasive game. It has, therefore, extended existing research into the effectiveness of persuasive games; from in-game characteristics of a persuasive game influencing attitude change, it expanded to pre-play game presentation factors influencing the decision to play. The three factors indeed influenced player responses and their precedents, either directly or implicitly.

Furthermore, the results imply that interest to play is conceptually different from intention to play. Results showed that interest to play was a stronger positive predictor of playing behaviour. Previous research into the intention-behaviour gap does not mention interest in performing behaviour as a possible bridge for this gap. This might be because it is perceived as too similar to behavioural intention. For example, a study by Sanderson et al. (2009) measured interest in genetic testing as a predictor of actual uptake of genetic testing, by asking how likely it was one would take a test. This was measured on a five-point Likert scale ranging from definitely not to definitely would. Interest was thus measured in terms of aspirations to perform a behaviour, and, therefore, in the current study would be treated as an intention. However, interest is a separate factor that can have an influence of its own and is, therefore, worthy of further exploration and a separate definition in future research. A few other studies did treat interest as a separate factor, such as the study by Leung & Chen (2017) involving interest in specific types of tv-content. Nonetheless, most of them could only conclude that interest positively influenced intentions, as actual behaviour was not measured. The current study extends their results from behavioural intentions to actual behaviour. Future research is necessary to further explore why and under which conditions interest and intention behave differently. Furthermore, additional evidence is needed to support the claim of this study that it is better to focus on increasing interest to play than on increasing intentions to play when promoting persuasive games.

This study moreover contributes to the ongoing discussion about the role of persuasion knowledge or perceived obtrusiveness in the context of serious, and thus persuasive, games. On the one hand, persuasion knowledge is presented as something that should be avoided (e.g. de la Hera, 2019, Kaufman et al., 2021); a game's persuasiveness is increased if the player's awareness of persuasion is decreased (Christiansen, 2014). On the other hand, Jacobs (2017, chapter 8) did not find any signs of psychological reactance in players who knew they were targets of a persuasive attempt. The current study offers a new perspective, extended to the context of the pre-play game

presentation factors and decisions regarding selection and playing. This perspective is: persuasion knowledge or perceived obtrusiveness is something that should be actively nourished through the description of a persuasive game. Perceived obtrusiveness had a positive influence on attitude, interest to play, and selection behaviour. Instead of perceived obtrusiveness making readers less receptive and thus more resistant to a persuasive message (Kaufman et al., 2021), these results imply that perceived obtrusiveness made readers more receptive and less resistant to a persuasive game description. Furthermore, interest to play was a predictor of playing behaviour. As an increase in perceived obtrusiveness increased interest to play, the results suggest that persuasion knowledge can indirectly increase the chance of trying to access the game. This paves the way to increasing a persuasive game's effectiveness and impact.

Finally, where the persuasive intent frame still might have had an influence through perceived obtrusiveness, the entertainment frame did not have any direct influence on player responses, or their precedents, towards the presentation of a persuasive game. This can make one question the importance or need of presenting persuasive games as being fun before anything, a perspective that according to Jacobs (2021) is still common in the field of persuasive game research. The results of the present study suggest that it made no difference if a description of a persuasive game did or did not focus on fun and enjoyment. In fact, it is implied that only in combination with a persuasive intent frame it made a difference; in that case, it was more effective to focus on eudaimonic gratifications rather than on hedonic gratifications.

5.3 Limitations and Future Research Directions

As with any study, the current one also comes with some limitations. First, participants did not recognize the framing manipulations as intended. Apparently, the differences were so subtle, they only had implicit effects on participants' responses. This might have contributed to the fact that no main effects of framing could be found in this study. Possibly, the framing conditions could have been extended to include no manipulation for the persuasive intent frame (e.g., a 2 (entertainment frame: hedonic versus eudaimonic) x3 (persuasive intent frame: obfuscated versus explicit versus none) experimental design). This way, it could have been investigated if the persuasive intent frame indeed acted as noise for participants to interpret the entertainment frame as intended; either as offering fun or offering an opportunity to think.

A second limitation of this study has to do with the aim of investigating which factors would influence player responses, and their precedents, towards the presentation of a persuasive game in a natural setting. Even though the audience was not entirely captive, it cannot be classified as a fully natural audience either. Although the playing behaviours took place in a mostly natural setting, participants could not choose to be either exposed or not exposed to the presentation of a persuasive game during the experiment. This might also have influenced the perceptions of the link to *WDtCtR*, provided at the end of the questionnaire and in an email sent within 24 hours after completion of the experiment. Because of the captive setting of the presentation of *WDtCtR*, participants might have been less receptive to the link than they would have been in a natural setting, as it might have felt a bit forced. Future research might benefit from looking for ways to manipulate persuasive game descriptions on real delivery platforms, to see how differently framed descriptions lead to more or less playing behaviour in a fully natural setting.

The current study explored framing as a content-related factor influencing player responses and precedents. Therefore, the content manipulations were solely textual and focused on the description of a persuasive game. However, some delivery platforms mainly present titles of games, which implies that selection behaviour can be based on the appeal of a title. The pre-test interviews also hinted that titles can have a big influence on generating interest to play, which might make it a worthwhile content-related factor to include in a future study.

Meanwhile, in the current study, all non-textual cues, such as visual cues, were kept similar across conditions and within the pairs of games presented. It might however be that other content-related factors which are not textual, such as the style and colours used in images accompanying a description, can further influence player responses. Other examples of content-related factors that

could be investigated in the future are for instance digital nudges, placing on a delivery platform, or the inclusion of short videoclips with a description.

Regarding the source of recommendation, a consumer-generated recommendation was now operationalized as a WhatsApp message from a friend. It would be interesting to see if other types of consumer-generated recommendations have a similar or possibly even larger effect, especially since other types of recommendations might be more common than direct recommendations via social media. Examples include consumer reviews, discussions on a forum or comments left by previous players on a game's page. This could give practitioners more insight into which type of recommendation is most desirable to facilitate. Theoretical gains include insights into what categories of consumer-generated recommendations can be distinguished within the context of persuasive games, how they differ in terms of effectiveness, and the role of source credibility as a mediator per distinguishable category.

Lastly, the results showed that perceived obtrusiveness had a positive effect on player responses and precedents, and that the sample of this study in general had a positive attitude towards the topic of the persuasive game used. Therefore, the current study suggests that the assumption made by Kaufman et al. (2021), concerning the decreasing importance of obfuscating persuasive intent when a topic is less sensitive and counter-attitudinal, might be acceptable. To provide additional evidence for this claim, future research might further explore the influence of topic sensitivity on the effect of perceived obtrusiveness on player responses and precedents. It might be beneficial to repeat the current study with a target persuasive game that deals with a more controversial topic, which people, in general, perceive as threatening or counter-attitudinal. Possibly, topic sensitivity acts as a moderator, strengthening or weakening the positive effect of perceived obtrusiveness on player responses and precedents as the topic sensitivity decreases or increases.

5.4 Practical Implications

This study offers practical insights into which responses towards the presentation of a persuasive game make selection- and playing behaviour more likely. It additionally provides implications about how these responses can be generated. Attitude is a predictor of selection behaviour. Therefore, to make selection behaviour for persuasive games more likely, it is important to create positive attitudes towards this persuasive game. This can be done by writing a description that induces perceived obtrusiveness in readers, as attitudes towards the game improve when perceived obtrusiveness increases. It might thus be beneficial to use an explicit persuasive intent frame, being very open about the game's genre, issue and persuasive goal, to increase the chance of selection.

Interest to play a persuasive game is a predictor of playing behaviour, conceptualized as trying to access a persuasive game. Interest to play can also be increased by using an explicit persuasive intent frame. Increased perceived obtrusiveness namely has a positive influence on interest to play. This further validates the claim that it can be beneficial for game designers and delivery platforms to be explicit and thus open about their persuasive intentions in the description of the persuasive game presented.

No effects of entertainment frames on selection- and playing behaviour, or on precedents of these responses, could be found in this study. The interaction effect between entertainment frame and persuasive intent frame however leads to the recommendation that if an explicit persuasive intent frame is used in a persuasive game description, it is advisable to match the rest of the text to this frame. This can be done by using a eudaimonic entertainment frame, which focusses on the eudaimonic gratifications players can get from playing the game. This is advised because this combination is perceived as most congruent. As such, it leads to more positive attitudes and a larger interest to play, which, as mentioned, have a positive influence on selection- and playing behaviour.

Additionally, as both intention to play and source credibility tend to be higher when the source of recommendation is consumer-generated, it is advised to facilitate this type of recommendation to further promote playing a persuasive game. This could for example be done by including a message at the end of a game saying "did you like this game and you think your friends

would like it too? Let them know and share the link to this game with them!", or by offering the option to leave comments and reviews with a game. Another reason for advising to make use of consumer-generated recommendations is that this type of recommendation leads to higher source credibility when combined with a description which is explicit about a game's persuasive intent. As it was just argued that this explicit persuasive intent can increase the chance of the game being selected and played, it seems most beneficial to also make use of consumer-generated recommendations.

It must also be noted that attitude towards gaming diminishes the predicting effect of interest to play on playing behaviour, as this personal characteristic is the strongest predictor of playing behaviour. Attitude towards gaming also positively influences interest to play as well as attitude towards the persuasive game and thus selection behaviour. Therefore, it can be advisable for the serious gaming industry or governmental agencies working on promoting social change, to invest in creating a positive image of playing serious games as a leisure activity. For example, a campaign can be launched informing the public about the opportunities games offer for learning, training and broadening one's view. This might lead to a larger proportion of the target audience for persuasive games becoming receptive to the presentation of a persuasive game, which in the end could lead to an increase in the effectiveness of such games, as they might be played more.

6. Conclusion

To my knowledge, this study was the first to explore how players can be persuaded to select and play persuasive games. Although it could not be concluded that entertainment framing as a factor by itself had an influence, two other factors are found to be key to consider when presenting a persuasive game: persuasive intent framing and source of recommendation. Overall, the results suggest that to increase the chance of selection- and playing behaviour in natural audiences, it is important to be explicit about a game's persuasive intent. This contradicts the commonly held belief in serious game research that persuasion knowledge in players is harmful and that serious games must be presented as being fun first and foremost. Although more research is needed into the conditions under which the found results hold true, for now, it seems unnecessary for persuasive game descriptions to cover up their persuasive intentions with promises of fun or with obfuscating techniques. These results are an important step forward in the pursued validation of the increasingly popular persuasive games, as no persuasive game can be effective if players cannot be induced to select and play them without being directed to do so. Future research must focus on other factors, such as visual cues, and their ability to influence player responses and precedents towards the presentation of a persuasive game. This will further open the doors for persuasive games to start living up to their potential.

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Appendix A

Detailed description of the gameplay

In the game *Why did the chicken cross the road?*, one tries to find out why the playable character, a chicken, crosses the road by talking to other, non-playable animal characters. The animals on the starting side of the road all express fear of crossing the road and tell the chicken that they will miss it and hope it will be safe. While crossing the road, several light-hearted and sometimes funny explanations why the chicken crossed the road are encountered. On the other side of the road, the chicken is greeted by three other non-playable animal characters who are less friendly and welcoming. It becomes clear that the chicken must go back to his own side of the road and to know why, the characters on both sides of the road can be talked to again. The characters on the other (thus not the “own”) side of the road become even more hostile. When crossing back, again several explanations why the chicken crossed the road are encountered, yet this time these match motivations of migrant workers and refugees to cross international borders. Simultaneously, crosses indicating death appear on the road as the chicken crosses back. Back on the other side, the chicken is perceived differently by its previous friends. The baby chick character expresses relief that its father made it back as well as that it knows that tomorrow, the chicken will cross again. Then, the game ends and players can choose to talk to the non-playable characters again to find out more about the inspiration for the game as well as to receive a call to consider donating to a charity for migrant workers and refugees.

Several in-game statements made by the non-playable characters have led to the description written as above. For example, the notion that characters on the other side of the road are less welcoming is based on dogs growling and texts like “might be a good idea to just go on about your day” and “you do not look familiar, you should go back to where you came from”. The notion that these characters become more hostile is based on one of the characters referencing Trump by saying “Make this side of the road great again!” and others agreeing with this statement. The interpretation that back on the other side, the chicken is not perceived the same anymore by its friends is based on one of the characters saying “so now you think you’re all that? You think you’re so much better because you’ve gone and come back?”.

Appendix B

Transcripts of Pre-test Interviews

Interview 1

Interviewer: Marloes Groen (MG)

Interviewee: GR, male, 33 years old

Nationality: Dutch

Educational level: Master's degree (obtained)

Date and time: April 12th, 2022, 14.00 hours.

Location: Groningen, in person

Set of stimuli used: Version 1

MG: Speel je zelf games?

GR: Speelde. Heel vroeger was dat. Dan heb je het echt over 15 jaar geleden hoor. Maar (naam game). Dat was echt slakjes doodmaken enzo. En wel Mario Kart. Ik heb nooit een Nintendo gehad, nooit een Xbox gehad.

MG: En op de computer of je telefoon?

GR: Ja ooit Snake op de telefoon. Nee niet heel vaak. Af en toe FIFA nog, maar dat is echt heel sporadisch.

MG: Oke. Nou dat maakt voor dit helemaal niet uit. Ik heb wat tekstjes geschreven die over games gaan. En eigenlijk is het de bedoeling van deze pre-test dat ik ga kijken: "hoe gaan mensen straks naar deze tekst kijken?" Als ze dit lezen, wat denken ze dan? Kunnen ze het überhaupt begrijpen of staan er woorden in waarvan ze denken "wat moet ik hiermee"? Hoe interpreteren ze het, waar associëren ze het mee? Dus wat ik graag zou willen doen is jou gewoon wat dingen laten lezen en dan je eerste reactie horen. En dan wou ik beginnen met deze:

[Description in hedonic x obfuscated condition is shown]

GR: Oke. Nou er wordt een bepaalde verwachting geschetst. Het is maar vijf minuten, een vijf minuten adventure. Dus het is kort, dus je kan het zo even tussendoor spelen. Dat is wel aantrekkelijk. Het nodigt wel uit.

MG: Wat maakt dat het uitnodigt?

GR: Nou, dat het een kip is. Een kip die moet de straat over steken. Dat roept al iets op, een soort nieuwsgierigheid. Het is een niet gebruikelijke omstandigheid, het is niet dat een kind de straat over moet steken, ik vraag me meteen af, waarom een kip? Er zit een soort absurditeit in denk ik, en dat nodigt uit.

MG: En vind je de tekst begrijpelijk?

GR: Ja het is even het Engels vertalen natuurlijk in mijn hoofd. Maar ik snap wel wat de bedoeling is. Je moet door anderen te bevragen moet je de vraag beantwoorden. En bijna alsof het een soort maatschappelijk ding nog achter zit.

MG: Ja? Hoe komt dat?

GR: Nou, omdat je het hebt over “work en life struggles”. Dus dan is het dus breder dan alleen maar het spelletje. Misschien hoopt de maker dat hij nog wat achterlaat. Dat hij nog een zaadje achterlaat dat je misschien aan het denken kan zetten voor je eigen situatie. Misschien kom je wel een vergelijkbaar iets tegen, hoe suf het ook lijkt. Zoets.

MG: Dat zou een beetje jouw verwachting zijn van het spel?

GR: Het suggereert in ieder geval dat het niet alleen maar die vijf minuten vermaak is. Maar goed, Snake op mijn telefoon is ook heel even vijf minuten vermaak. En daar hebben we verder niks aan. Er wordt een soort beeld neergezet van dat het niet alleen maar een spelletje is maar dat het meer is dan alleen maar het korte spelletje. Dat er een soort dubbele bedoeling in zit. Ik zit een beetje door te denken. Op een of andere manier komt een heel kort vijf minuten avontuur komt niet overeen met een bewustzijn over dagelijkse struggles. Want vijf minuten vermaakt is gewoon “ik moet vijf minuten op de bus wachten dus hup, ik ga even die kip de straat over jagen”. Maar het is als het ware ik ben op vakantie en ik speel dit spelletje en dan kan ik er daarna nog even een kwartiertje over nadenken. Dus op één of andere manier matcht dat niet met elkaar, in mijn hoofd.

MG: Zou je het zelf spelen?

GR: Ja, ik ben wel benieuwd wat het is.

[Description in eudaimonic x explicit condition is shown]

GR: Hier zit een veel maatschappelijkere boodschap in, natuurlijk. Wat ik net al een beetje vermoedde zit hier veel duidelijker in. Dit is meer, voor een misschien beperktere groep. Nou omdat je je richt op work and life struggles van immigrant workers and refugees. En je wil een soort sympathie daarmee kweken. En dan zie ik dan weer de link tussen de kip en een immigrant niet, maar... Het doel is, sympathie vergroten. Dit is een heel ander hoofddoel, hier gaat het niet om het vermaak en de vijf minuten die ik moet doden omdat ik sta te wachten tot de pizza klaar is. Dit is meer een soort snel spelletje om een soort maatschappelijke discussie in je hoofd aan te zwengelen. De vorige was echt een entertainment met de kans van, misschien ga je er nog over nadenken. En dit is echt een... als je dit zo leest dan haken er mensen denk ik wel af.

MG: Ja? Zou jij afhaken?

GR: Nou ik niet, maar als je een beetje aan de andere kant staat en niet zoveel op hebt met immigranten en vluchtelingen, dan haak je af. Omdat er heel duidelijk staat “dit willen we er mee bereiken”. Dus je sluit een groep uit. Dat zou kunnen.

MG: En deze tekst? Vind je deze ook begrijpelijk?

GR: Hij is moeilijker. Persuasive... mm wat is dat ook alweer? Hier moet ik iets meer mijn aandacht bij houden, dit leest iets moeilijker. Die vorige tekst was misschien wat vrolijker, wat opzwepender. En dit is wat meer alsof er iemand voor de klas staat en die legt de opdracht uit en over een kwartier gaan we het klassikaal bespreken. Dit is wat formeler. Serieuzer. Dat andere was echt wat meer opzwepend, let's go, entertainment, he ho. En dit is wat meer serieus.

MG: Maar je zegt wel dat je het nog steeds zou spelen? Wat maakt dat?

GR: Ja, nog wel. Maar ik denk dat een deel zou afhaken. Maar ik niet, omdat ik nog wel een soort van sympathie heb voor immigranten en vluchtelingen, die doen het niet voor hun lol. En nog steeds, het is een kip die de straat over wil. Dat is nog steeds interessant. Waarom wil hij dat? Waarom heeft de

maker een kip gekozen die de straat over steekt, dat wil ik weten. Gewoon nieuwsgierigheid. Dat blijft erin zitten.

[Description in eudaimonic x obfuscated condition is shown]

GR: Ik zit even de verschillen te zoeken met die eerste... Is het niet gewoon de eerste? Hij lijkt heel erg veel op de eerste.

[Description in hedonic x obfuscated condition is shown simultaneously with the description in eudaimonic x obfuscated condition]

GR: O ja. Daar zit de meaningful. Hij [eudaimonic x obfuscated] zit eigenlijk een beetje tussen het entertainment en serieus in. Hij hangt tegen het entertainment aan maar met een iets serieuzere toon. En vooral die laatste zin "your way of viewing the world *will* be challenged". En daar zit vooral een nadruk het is niet alleen vermaak, entertainment, maar iets meer die nadruk op maatschappelijk nut.

MG: Dus je krijgt wel een beetje verschillende associaties?

GR: Ja hier [hedonic x obfuscated] is de associatie heel erg van het maakt niet uit of hij platgereden wordt of niet, ik heb wel gewoon lol. En hier [eudaimonic x obfuscated] is de associatie als ik niet iets anders denk wanneer ik dit spelletje heb gespeeld, dan heb ik iets gemist. Hier wordt een bepaalde verwachting neer gezet, want spelmakers willen prikkelen. En of het nou waar is of niet, dat is altijd maar afwachten. Maar die [hedonic x obfuscated] zit bij entertainment, die je net liet zien [eudaimonic x explicit] zat bij serieus en deze [eudaimonic x obfuscated] zit net onder entertainment. Van "we hopen dat je ook nog een ander beeld van situaties krijgt". Net even dat je geprikkeld wordt of jouw percepties helemaal juist zijn of dat er nog iets anders aan toegevoegd kan worden. Dus de een associeer je net iets meer met fun dan de andere.

[Description in hedonic x explicit condition is shown]

GR: Die combineert van alles. Daar zit ook dat fun element in. Maar wordt ook het doel echt uitgelegd. Want in die eerste [hedonic x obfuscated], daar werd het doel eigenlijk niet echt uitgelegd, de achterliggende. De vraag blijft, waarom vergelijk je die kip met een immigrant? Maar er is niks wat echt zegt, nou nu zou ik het niet meer spelen.

MG: Zijn er nog meer woorden waar je nog even over na moet denken, zoals je net aangaf met persuasive?

GR: Ik zat net te denken narrative. Dat is natuurlijk narratief. Dat is een moeilijk woord voor boodschap. Narratief. Wat is narratief eigenlijk? Dat blijft ook een beetje hangen. Kernboodschap? Zoiets. Ik weet het niet, ik kan niet echt een betekenis geven aan het woord narrative. Dat is een moeilijk woord. Persuasive... dat is volgend mij uitdagend? Dat weet ik eigenlijk niet. Dat zou ik er voor invullen.

[Descriptions of "My farm rules" and "Life of a farmer" are shown simultaneously]

MG: Zijn er dingen die je opvallen? Zou je voorkeur hebben voor één van de twee?

GR: Ze hebben allebei plussen. Het is altijd lekker als zo'n tekstje begint met een vraag. Dan word je gedwongen om een antwoord te geven, in je hoofd bedenkt je dan een antwoord, voor mij werkt dat prikkelend. My farm rules is duidelijker over wat je moet doen. Maar Life of a farmer heeft als plus dat hij zegt hoe simpel die is.

MG: Zou je denken dat het wel twee verschillende spellen zijn? Of...

GR: Nee. Want in beide gevallen gaat het om... Nou vergelijkbaar in ieder geval. Misschien dat de doelen toch wat verschillen. Bij de een moet je de beste zijn, de ander gaat meer over het leven van ervaren. Het is wel vergelijkbaar, het ligt niet ver uit elkaar.

MG: En qua tekst?

GR: Ze zijn absoluut begrijpelijk. Hier staan geen onbekende woorden in.

[Descriptions in hedonic x obfuscated condition and "Back and forth" are shown simultaneously]

GR: De titel van Why did the chicken cross the road? is veel spannender. Maar ik krijg meer zin om Back and forth te spelen. Want daar zit een soort uitdaging element in, je moet zoveel mogelijk punten verzamelen. En met de road crossing kan je veel rustiger aan doen, er word je wat vertelt. Voor meer spanning moet je Back and forth doen en als je rustig achterover wilt zitten Why did the chicken cross the road.

MG: Dus als ik jou zo hoor, duidelijk twee verschillende games.

GR: Twee verschillende games. Bij Back and forth komt steeds iets anders uit, Why did the chicken cross the road is altijd hetzelfde.

MG: En qua begrijpelijkheid?

GR: Hier staan geen moeilijke woorden in.

[System-generated and consumer-generated [Facebook] recommendations are shown simultaneously]

MG: Wat zou jij zeggen dat de bron van de linker en van de rechter aanbeveling is. Waar komen deze aanbevelingen vandaan? Van wat voor bron?

GR: Dit [system-generated] is een algoritme. En dit [consumer-generated] ook. Want ik zou niet geloven dat een vriend van mij dat zelf getypt heeft.

MG: Waar zit dat hem in?

GR: De formulering. Iemand schrijft dat niet zo. Ik hoor al dit is bedacht door een ontwikkelaar. Dit is niet een eigen tekst, dit is gegenereerd. Als iemand het zelf schrijft is het niet zo algemeen. Het moet korter. Ik haak na een zin al af, dit hoef ik verder niet te lezen. Dit lijkt vertaald uit een andere taal. Ik geloof dit niet. Het zou meer spreektaal moeten zijn. Dit is te netjes. "I have to say" ... het is te gemaakt. Je kent je vrienden, je weet wat voor woorden ze zouden gebruiken. Het moet een herkenbaar woord tussen zitten, dan geloof je het pas.

MG: En qua hoe het er uit ziet? Vind je dat realistisch?

GR: Ja. Al prik je daar heel snel door heen, omdat je daaronder ook die link ziet [consumer-generated]. Dan weet je al heel snel dat het doorgelinkt is, het is geautomatiseerd. Want anders zou iemand een screenshot maken van het spelletje bijvoorbeeld. Echt een scene uit de game, wat hilarisch is. Dit is gewoon de voorkant van het spel, dit is niet een situatie. En daarin is het denk ik voor mij ook minder geloofwaardig.

Interview 2

Interviewer: Marloes Groen (MG)

Interviewee: PL, male, 23 years old

Nationality: Finnish

Educational level: Master's degree (currently pursuing)

Date and time: April 13th, 2022, 10.00 hours.

Location: Online

Set of stimuli used: Version 1

MG: Do you play games online or...

PL: Yes. Civilization six. I used to play a lot of shooter games. Now I play more chill games. I like to play against people, that is fun. I play a lot.

MG: Okay good to know. [introduces goal of pretest]

[Description in eudaimonic x obfuscated condition is shown]

PL: I think it is not a game for me.

MG: How come?

PL: I think I don't play games usually for the narrative. I think it is too short. I don't like to play short games necessarily. I think maybe short games are less thought out, it's very basic maybe. Also, it is not playing with or against others. "Raising awareness of work and live struggles", nah. I already know the struggles, don't need to play a game for that.

MG: Do you think the text is understandable?

PL: I am really bad at reading always; I always have to re-read things. So, it took me a while to read, that is always the case almost. Maybe it was a little difficult, the first sentence especially, that it stops with a question. The name is a little bit hard to read. And "gain some insight" is not an attractive way to advertise a game.

MG: What does that make you think of, what associates do you get from that sentence?

PL: I think the opposite of what games usually are. I think games are usually supposed to about enjoyment and fun first. So, games on insight are more boring. It is the same as using gamification, in my head you then want to trigger more enjoyment rather than learning. So, you try to deceive a little bit. But "gain some insight" is very clear, I think it needs more deceiving. There is nothing about the game play. Like, what type of adventure game is it?

MG: What do you think of when you read adventure game?

PL: With this picture, I honestly don't know. I am imagining like the frog game, where you try to get across the street. And I see a street here. And a chicken, so that would go slow. Trying to dodge the cars and get to the other side.

MG: What would you expect this game to be like if you would play it?

PL: Now I am thinking of it as I just described, but then somehow with a narrative. And also, somehow related to work and life struggles. And I am wondering how that would be. Someone

crosses a street... Now I am creating the game, I guess. I am imagining that on the one side of the street is the house and on the other side of the street is the workplace. And then in the middle you have to cross the street, where would be all the difficulties between the two. The chicken is now you. And you have to dodge the problems going back and forth.

[Description in hedonic x explicit condition is shown]

PL: Here I am also conflicted that they are saying it will be fun, like an escape and all that, but on the other hand it will be about a dark topic. I don't see them connected. So, this is even less attractive I think, despite the mention of the fun. Because of the contrast. Persuasive game... I do not think you should mention it is a persuasive game for advertising a game.

MG: Why do you think that?

PL: The manipulation is said explicitly. Who would want to be persuaded? No one. I also think "escape" is a negative thing, I don't think you should mention that. It should more be focussed on the fun and the gameplay. You can include the narrative there, because there are certainly players who are more into narrative than the gameplay. If you really want to make a game for everyone you should highlight both. And after both of those things are covered you could go into the narrative. Then you could say like "it is based on real life", just like in some shows.

MG: And if you look at the text? Is it understandable? Or are there parts that you are struggling to understand?

PL: It is okay. I would still do something about how you present the name of the game. Some separation between the sentence and the name of the game.

[Description in hedonic x obfuscated condition is shown]

PL: This is really I think related to the other ones, because they also mention talking to the animals. It does not sound engaging for me. So, the same issue here. I am still missing information about the gameplay. I know there are a lot of games and a lot of people who like to play those narrative, story based or even just listen to the story type of games. But those are not interesting for me. I don't see anything that would engage me.

MG: What would you expect of this game? Based on the text you see now?

PL: Probably just clicking to see a narrative. And because it says it is an adventure game, I guess the chicken does something. And action-based adventure. But I do not think I would have a lot of control over it, because it is based on the narrative.

MG: And do you notice anything about the text that is not understandable, except for the presentation of the name of the game?

PL: Maybe that it mentions struggles twice. That is a little bit unnecessary maybe. You can just refer to the previous sentence maybe, without saying the same word again. It did not bother me really, but it was a little off.

[Description in hedonic x obfuscated condition is shown simultaneously with the description in eudaimonic x explicit condition]

MG: If you see these two together, do you get similar associations or different associations based on the text?

PL: The right side [eudaimonic x explicit] is more darker if you would like to compare. The other one is more attractive still. Of course, both are still focussed on the narrative, which is for me not attractive. And both are related to just talking, so that means that the game probably has less autonomy for me.

MG: And if you say that the right one is darker, what do you mean by that?

PL: Because of the topics. So more focussed on the struggles of the immigrant workers and refugees and in the other one it is just work and life struggles. Which also is not that much something I would like to play. Especially because of the way it is advertised, as an escape from daily life. It conflicts completely.

[System-generated and consumer-generated [Facebook] recommendations are shown simultaneously]

MG: If you would have to name the source of each of these two recommendations, what would you say the source is? And just imagining that in the black box on the Facebook page is the name of someone you know. Where are these recommendations coming from, who or what is giving it to you, you would say?

PL: The left side [system-generated] is an automatic ad based on some kind of algorithm on the website. So, if you really want to think about it, it is the website developers, indirectly, but it is coming from an algorithm, so it is not a person. And the right one [consumer-generated] is... at least it is coming from someone's account. Whether that someone is an actual person, I do not know. It might be a bot. From the type of writing.

MG: What about it makes you think it might be a bot?

PL: There is no emotion behind it. It is very passive. "It was an interesting experience"... If it was an interesting experience, I think someone would, if it would be a person, would describe it a little more. How it is an interesting experience or use a little more emotional words like it was a touching experience about this... Interesting... you would not just share something like this. But I do not use a lot of social media, so I do not know.

MG: And the way it looks, does it look realistic to you?

PL: As a screenshot? Yes.

[Descriptions of "Get out of here" and "Let's escape!" are shown simultaneously]

PL: Without reading, looking at these pictures I am like "why are these so unfocussed"? Unattractive, I would not even read the texts itself. But I will look at the text now... I like the left [Get out of here] more. I can picture it in my head. The description is very clear, it is very short. But also, I have gone to escape rooms before and played those online, so I know those can work. I think the name could be a little more special. But apart from that, it is good. The right one [Let's escape!] I am imagining that the picture does not match the description. At least for me. If I would just ignore the picture, what I am imagining is like a parkour game. That would sound very attractive. I am even thinking about an existing game while I am reading that. To make it more attractive, I would add some features of an adventure horror game, formulate it more into the horror genre. Then it would be quite engaging.

MG: If I listen to you, you treat them both as different games, right?

PL: Yes.

Interview 3

Interviewer: Marloes Groen (MG)

Interviewee: SW, male, 33 years old

Nationality: Dutch

Educational level: MBO (obtained), HBO (not completed)

Date and time: April 15th, 2022, 14.30 hours.

Location: Kantens, in person

Set of stimuli used: Version 2

MG: Ik doe onderzoek naar games...

SW: bordspelletjes? Of online?

MG: Digitaal, online. Ik zie hier al een speciaal toetsenbord, jij bent wel een gamer? Wat doe je?

SW: World of Warcraft, [Naam game]. Dat is een simulatie, sandbox game. Je script hem zelf helemaal. Er is geen doel ofzo, het is gewoon, leef je uit. En World of Warcraft speel ik al zo lang, dat is leuk omdat je het al zo lang samen met mensen speelt. Elke zondagavond.

[Description in hedonic x obfuscated condition is shown]

SW: Als ik het plaatje in eerste instantie zie dan denk ik aan een pixel-based bit spelletje. Zoals vroeger Pacman, dat soort dingen. Qua tekenstijl. Ik zou het niet direct associëren met een spelletje trouwens.

MG: Hoe komt dat?

SW: Ja ik weet niet. Het hangt er natuurlijk vanaf in wat voor context je dit plaatje ook te zien krijgt. Als je het op een bepaalde website te zien zou krijgen waar je al op zit omdat je iets zoekt voor bepaalde spellen of wat dan ook, dan ga ik er van uit dat het een spel is. Maar als ik het op NU.nl voorbij zou zien komen, zou ik niet denken dat het een spel is. Maar qua tekenstijl associeer ik het op zich wel met spelletjes, en dan echt van die, die zijn tegenwoordig heel populair, van die puzzelspelletjes in verhaalvorm. Een beetje een soort escape-room achtig iets, maar dan in spelvorm. Met deze tekenstijl.

MG: En op basis van de tekst, wat voor soort spel verwacht je dat het is?

SW: Puzzel. Eigenlijk wat ik net ook beschreef, zoiets. Beetje zoals Zelda, een van de grootste spellen van Nintendo. Dan ben je ook een karakter en doormiddel van queesten kom je dan ergens. Dus je praat met poppetjes in het spel en die geven je opdrachten en dan gaandeweg vind je... nou ja zo ga je dan door het spel heen. Daar denk ik aan. Want je moet met andere dieren gaan praten. Het is wel een heel klein spelletje, vijf minuten blijkbaar. Ik denk dat je afhankelijk van wat voor keuzes je maakt als je met een ander dier praat dat je dan bepaalde antwoorden gaat krijgen over werk gerelateerde problemen, denk ik.

MG: Zou je het zelf spelen als je dit zo leest?

SW: In mijn vrije tijd? Nee want dat is veel te klein, te kort. Ik speel echt spellen waar je letterlijk maanden in kwijt kunt, waar geen eind aan zit. Dit soort mini games, nee, daar zit geen uitdaging in. Maar aan de andere kant, als ik van tevoren weet dat het maar vijf minuutjes duurt, dan zie ik het meer als zoiets wat je ook wel eens doorgestuurd krijgt, zoals [...] wel eens dingen door stuurt. Zoiets

als een bepaalde vragenlijst, waar dan een bepaalde uitkomst uit komt en die kan je dan mooi met elkaar vergelijken. Van die dingen, “wie doet het meest in huis” enzo. Als het erbij zou staan dat het maar vijf minuten zou duren, dan zou ik het wel spelen. Maar als het echt geadverteerd zou worden als een spel, dan denk ik “nee”. Dan verwacht ik, zeker als single player, dat het langer zou zijn. Dit is iets wat je vroeger stiekem op school in een heel klein vakje boven in je scherm speelde.

MG: Als je de tekst zo leest, is het begrijpelijk?

SW: Ja, dat is wel duidelijk.

[Description in eudaimonic x obfuscated condition is shown]

SW: Ik vind deze duidelijker denk ik dan die vorige. Het begint ook met “gain some insight”, dat geeft voor mij ook gelijk aan wat het doel van het spelletje is. Dus insight, iets krijgt, spelenderwijs bepaalde informatie krijgt. En bij de andere stond dat volgens mij pas op het eind. Dus als het eerste dan niet trekt, dan haak ik al af, dan lees ik niet verder. Maar bij deze begin je al direct met wat het je oplevert, dus ik vind dit zelf duidelijker. Maar ik heb niet per se een andere associatie bij het spel. Behalve dat je iets kan leren, dat stond bij die vorige pas op het einde “it aims to raise awareness”. Aan het begin zou mij meer trekken. Aan de hand van die woorden kan je eigenlijk al vrij snel opmaken dat het een soort informatief spelletje is, dus niet per se entertainment. En als ik daar op dat moment geen zin in heb, dan hoop klik weg. Of juist niet. Dat maakt het duidelijker.

MG: Is de tekst van deze ook duidelijk?

SW: Ja. Er staat ook dat het heel kort is. Verder redelijk hetzelfde, behalve dan dat, wat het je oplevert. Een *touching* storyline... maar wel heel kort. Dat vind ik wel bijzonder. Vaak heb je wel als het een heel goed verhaal is, heel diepgaand, dan kost het je heel veel tijd. Maar goed, dat kan. Dat weet ik niet. Het valt me wel op, maar ik denk er verder niet iets van.

[Description in eudaimonic x explicit condition is shown]

SW: Dit is wel andere woordkeuze. Dit is sowieso veel specifieker. Dit gaat over immigratie, migranten en vluchtelingen. Kijk, dit is echt heel specifiek. Als ik dit zo zou lezen, zou ik met een hele andere gedachte dat spelletje gaan spelen.

MG: Wat is het verschil?

SW: Hier staat echt heel specifiek wat het doel is van het spelletje, sympathie voor vluchtelingen en migranten. Dat is heel specifiek, dat vind ik meer uitnodigend omdat je je dan gaat afvragen “hoe denk ik daar eigenlijk over”. Of misschien weet ik dat wel, maar... Dan verwacht ik dat als ik dat ga spelen, dat ik daar een antwoord op krijg. Hoe denk ik er eigenlijk over? Dan zie ik het niet per se als een spel, maar meer als een soort vraag en uitkomst lijstje, alleen dan spelenderwijs. Dat je bijvoorbeeld kan kiezen tussen drie verschillende antwoorden en dat elk van die antwoorden je een andere richting op zou gaan sturen. Dat je in feite zelf invloed hebt op welke kant je opgaat. Dat je letterlijk je eigen storyline maakt. Dat zal hier wat minder zijn, want dit is vijf minuten. Dan ga ik het veel meer benaderen als zoiets wat ik eerder zei wat je krijgt doorgestuurd en wat je gaat doen, en dan link je hem naar een vriend en dan ga je uitkomsten vergelijken bijvoorbeeld. En dan heb je daarna meestal het er nog over. Helemaal als je niet op één lijn zit. Er ontstaat dan wel een bepaald gesprek over iets waar je het normaal misschien niet zo snel over hebt.

MG: En dat is een andere verwachting van het spel als die je had op basis van die vorige beschrijvingen?

SW: Hier [hedonic x obfuscated] denk ik, helemaal als ik de eerste zin lees, denk ik aan een echt spelletje. Echt entertainment. En als je verder door leest dan zie je wel dat het niet per se entertainment is, maar het is op een entertaining manier dat je antwoord krijgt op een vraag of informatie krijgt over iets.

MG: Dus dan ga je anders het spel in?

SW: Ja, absoluut.

[Descriptions of “Get out of here” and “Let’s escape!” are shown simultaneously]

MG: Stel dat je moet kiezen tussen een van deze twee? Wat zou je dan kiezen en waarom?

SW: Ik vind “Get out of here” pakkender dan “Let’s escape!”, maar ik vind de tekst van “Let’s escape” pakkender omdat die meer uitlegt van wat je gaat doen en wat het spelletje eigenlijk inhoudt. Misschien vind ik toch “Get out of here” pakkender. Ik weet niet waarom. Misschien zou ik toch voor die gaan.

MG: Het zijn wel twee verschillende spellen denk je?

SW: Ja. Want de ene staat ook specifiek bij dat het gebaseerd is op een escaperoom ervaring. En die andere staat dat je vijanden hebt. En die heb je volgens mij niet in een escape room. Of anders klopt mijn definitie van een escape room misschien niet. De teksten zijn verder wel begrijpelijk.

[System-generated and consumer-generated [Facebook] recommendations are shown simultaneously]

MG: Als jij zou moeten zeggen waar deze aanbeveling vandaan komt, of wie of wat de bron is van beiden, wat zou je dan zeggen? En dan bij deze [consumer-generated] zou er dan bij staan dat je vriend dit net gepost heeft.

SW: O, cookies. Gebaseerd op zoekgedrag. En al helemaal als je hem op Facebook ziet, dan is het 100% gebaseerd op jouw gedrag, op wat je op Facebook doet. Waar je op klikt, waar je op stil staat, waar je door scrolt.

MG: En stel dat je deze [system-generated] niet gezien zou hebben en je krijgt een tekstje met “je zit op Facebook en je leest deze post van een vriend”. Wat denk je dan?

SW: Als ik dat van een vriend zou zien op Facebook dan zou ik denk “O die heeft zijn Facebook gekoppeld aan een spelletje.” En die probeert gratis levels ofzo te krijgen. Dat is vaak zo. Waarschijnlijk zou ik dit niet eens lezen, dat soort dingen scrol ik altijd voorbij. En het staat in het Engels, dan lijkt het me ook niet door die persoon zelf geschreven. Het ziet eruit als een automatisch gegenereerd tekstje. Via een share knopje.

Interview 4

Interviewer: Marloes Groen (MG)

Interviewee: MS, female, 25 years old

Nationality: Dutch

Educational level: Associate degree (obtained)

Date and time: April 17th, 2022, 16.30 hours.

Location: Groningen, in person

Set of stimuli used: Version 3

MG: Doe jij nog games? Op je telefoon of tablet of iets?

MS: Vroeger wel, Candy Crush. Maar nu niet meer. En helemaal vroeger hadden we een Nintendo die je openklapte, en een gameboy. Wat deden we daarop dan? Mario ofzo. En van die honden en paardenspelletjes. Daarvoor wel op de computer met Rollercoaster en Zoo Tycoon. En de Sims.

MG: En deed je ook wel online van die spelletjes?

MS: Op spele.nl en spelletjes.nl en zo, dat soort dingen. Maar nu doe ik eigenlijk niks meer.

[Description in hedonic x obfuscated condition is shown]

MG: Begrijp je wat hier staat?

MS: Ja, ik begrijp dit allemaal wel. Ik zit alleen bij "It aims to raise..." Maar dat is dat dat de bedoeling is zeg maar. Daar moest ik even over nadenken, maar als je dan de rest van de zin leest dan kan je hem wel invullen, wat het betekent.

MG: Want als je nu aan mij dit spelletje zou beschrijven, wat zou je dan zeggen?

MS: Dat je door dit spelletje even uit het dagelijks leven stapt, dat je daar afstand van neemt. En door tegen andere dieren te praten erachter komt waarom de kip over de weg is gelopen. En je kan er mee bereiken dat je op een plezierige manier over werk en levens struggles nadenkt. Het maakt dat je erover na gaat denken, dat je er mee bezig bent, dat je het ziet en dat je het doorhebt. En door het verhaal in het spel, dat zorgt ervoor dan je wilt blijven spelen. Dat het leuk is.

MG: Wat verwacht je dat je in het spel moet doen? Wat voor spel zie je voor je?

MS: Dat je ergens in een bepaald gebied moet rondlopen en dan andere dieren aan moet spreken. En waarschijnlijk moet je dan zelf vragen of dilemma's of wat dan ook van het leven, van het werk-leven, beantwoorden. En door dat te beantwoorden, of een gesprek over te hebben, kom je daarachter. Uiteindelijk dan waarom de kip dan overgestoken is. En waarschijnlijk gaat het over verandering. Dat de kip zeg maar verandering is aangegaan.

MG: Hoe bedoel je?

MS: Nou, er staat "waarom de kip de weg over is gestoken". Dus waarschijnlijk waarom de kip ervoor gekozen heeft een andere weg in te slaan. Een verandering in die zin aan te gaan. Of om op een andere manier met het werk of leven om te gaan. Zijn struggles heeft opgelost.

MG: Zou je zelf dit spel spelen?

MS: Weet ik niet. Dat hangt ook een beetje van de situatie af denk ik. Als je daar heel erg mee bezig bent, met die work en life struggles dan wel. Maar als je gewoon oke bent, dan zou ik het niet per se uitkiezen om te spelen denk ik. Maar dat weet ik niet, want aan de andere kant staat er weer bij dat je het wilt blijven spelen en dat het leuk is. Dus wellicht is het ook wel gewoon onbewust, dat je bezig bent met die dingen. Dus ik weet het niet, het hangt een beetje van het moment af denk ik en of dat dan bij je past of niet.

[Description in hedonic x explicit condition is shown]

MS: Ik begrijp alles, behalve “this five minute...” Ik kan het niet eens uitspreken dat woord [persuasive], ik zou niet weten wat dat betekent. Ik heb het nog nooit eerder gezien. Maar je leest er een beetje overheen zeg maar, want je leest gewoon door. De hele zin verder begrijp je wel, maar ik heb geen idee wat dat moet zijn. Maar ik weet niet of dat echt invloed heeft op de rest van de tekst, van die begrijp ik wel.

MG: En wat zou je van dit spel denken?

MS: Het moet ervoor zorgen dat je sympathie krijgt voor de struggles van immigranten en vluchtelingen... in het werkleven zeg maar. Dat is de bedoeling van het spel, toch? Dat is wat ik er nu in zie. Dat je dit spel speelt en dat je door middel van die gesprekken met andere dieren kom je en achter het antwoord waarom de kip de weg over is gestoken én je krijgt daardoor, of in ieder geval, het is de bedoeling dat je daardoor sympathie krijgt voor de struggles van immigranten en vluchtelingen.

MG: En stel dat je deze [beschrijving] ergens zou tegenkomen?

MS: Ja dan misschien wel, omdat het nu ook heel erg actueel is. En omdat ik zelf persoonlijk daar niet heel veel van af weet, of ook net zoveel interesse misschien daarin heb of sympathie daarvoor heb. Ik ben daar niet echt mee bezig ofzo. Ik vind het prima, maar het is niet dat ik voorstander ben of tegenstander. Ik weet daar niet zoveel over dus misschien juist door zoiets te spelen heb je meer een mening er over. Ik heb er nu niet echt een mening er over.

MG: Dus jij zou dit spel spelen om misschien meer een mening te vormen?

MS: Ja. En juist omdat ik die nu nog niet zo heb is het spel wel aantrekkelijker. Want als je er al heel erg een mening over hebt, dan vind je dit misschien nutteloos. Dan denk je ik heb er al een mening over en ik heb er wel sympathie voor, of juist niet. Of je hebt zoiets van “Ik wil daar verder niets mee te maken hebben en dat is mijn mening. Punt.” Maar omdat je dat nog helemaal niet hebt, is het wat aantrekkelijker denk ik, om je er wel een mening over kunnen te vormen. Ik vind nu dat ik er ook niet echt iets over kan zeggen, omdat ik weet er niet echt van. Ik kan me er wel iets bij voorstellen wat die struggles moeten zijn, maar precies niet.

MG: Dus wat is dan je verwachting van zo’n spel?

MS: Dat je daarna meer daarover weet en dat je daar dan dus ook meer een mening over kan hebben. En dan wel of geen sympathie ervoor kan hebben. Want het is de bedoeling om dat voor elkaar te krijgen, maar dat zegt niet natuurlijk dat het altijd zo is dat je dan ook sympathie ervoor krijgt. Het kan ook zijn dat je daardoor juist minder sympathie ervoor krijgt ofzo.

[Description in hedonic x obfuscated condition is shown simultaneously with the description in eudaimonic x explicit condition]

MG: Als je deze twee met elkaar zou vergelijken, de beschrijvingen. Vallen er dan dingen op?

MS: Die [hedonic x obfuscated] is korter, dus dan lees je denk ik sneller die. En dat is denk ik ook gewoon fijner, als je een spel wilt spelen heb je geen zin om een heel lang stuk te lezen. Ik denk ook dat je misschien meer algemeen publiek trekt met die, omdat rechts [eudaimonic x explicit] heel specifiek gaat over immigranten en vluchtelingen. En dat komt in die tekst [hedonic x obfuscated] eigenlijk helemaal niet terug. Het gaat er misschien wel over, maar omdat het er niet in staat, mis je weer het stukje van “ik heb er al een mening over, dus ik ga het niet spelen”. Die mensen kiezen misschien wel om het te spelen met die [hedonic x obfuscated]. Én, deze [hedonic x obfuscated] lijkt wat minder zwaar zeg maar. Qua spel. Omdat hier [eudaimonic x explicit] staat dat de verhaallijn effect heeft op jou kijk naar de wereld. En dat is best een zwaar onderwerp. En hier [hedonic x obfuscated], dit is meer spelgericht. Dat het gewoon een verhaallijn heeft dat ervoor zorgt dat je door wilt blijven spelen, dat vind je ook op een spele.nl. Dat zorgde ervoor dat je het spelletje wilt blijven spelen. En zo ziet dit eruit, alsof het zo’n soort spelletje ook is. En hier [eudaimonic x explicit] lijkt het meer een nadenk iets. Minder gewoon spelen zeg maar. Terwijl het misschien exact hetzelfde spel is, maar hier heb je er van tevoren al een ander gevoel bij dan bij die. Bij die ga je er al heel anders in. Hier [hedonic x obfuscated] ga je erin van “ik ga gewoon een spelletje spelen”. En oke, je gaat misschien wel nadenken, maar daar ben je niet echt mee bezig omdat de rest overheerst. Er is maar een heel klein stukje dat daarover gaat. En die laatste zin en het eerste stuk overheersen dat kleine stukje wat ertussen staat. En hier [eudaimonic x explicit] blijft die eigenlijk doorgaan in “het wordt nadenken over, het gaat je kijk veranderen...” En dat immigranten en vluchtelingen stukje. En hij heeft moeilijkere woorden. Die andere [hedonic x obfuscated] leest makkelijker.

MG: Wat maakt dat?

MS: Het is korter en het is niet zo met dubbele woorden uitgelegd. Zoals meaningful en die persu... die. En deze [hedonic x obfuscated] is meer kort, bondig en gericht op gewoon spelletje spelen. Het leest gewoon makkelijker.

[Description in eudaimonic x explicit condition is shown simultaneously with the description of “Back and forth”]

MG: Welke zou je kiezen?

MS: Rechts [Back and forth]. Omdat daar meer het idee in zit van een spelletje spelen. Er zit spanning in, want je moet de hele tijd heen en weer gaan. Je kan winnen, je kan punten krijgen. Het lijkt alsof je niet na hoeft te denken, gewoon dom spelletje spelen. En hier [eudaimonic x explicit] is het weer meer nadenken. En weer langere tekst. Maar ik vind de titel “why did the chicken cross the road?” beter. Want daar wordt een vraag gesteld, dus dan ben je gelijk erin en over aan het nadenken. Het zijn wel twee verschillende spellen, maar ik zou de titels omdraaien.

[Descriptions of “My farm rules” and “Life of a farmer” are shown simultaneously]

MG: Zijn deze teksten ook begrijpelijk?

MS: Ja, allebei. Links [My farm rules] is weer meer een spelletje, voor mijn gevoel. En rechts [Life of a farmer] is meer om erachter te komen of jij geschikt bent om een boer te worden. Stel je twijfelt over je toekomst en je weet niet wat je wil worden en je denkt “nou, misschien is boer wel wat voor mij.” Dan is dit meer een spelletje daarvoor. Terwijl het is hetzelfde spelletje, dat zie ik wel. Want je moet via beiden... of nouja... hier [My farm rules] moet je trouwens puzzels oplossen enzo... Maar waarschijnlijk komen die challenges van “Life of a farmer” op hetzelfde neer. Denk ik. Dat weet ik niet. Maar links is meer zoals dat spelletje vroeger met die honden, dat je dat in leven moet houden. En dat je alles moest regelen. Je hebt ook wel van die spelletjes online dat je je restaurant moet

runnen, links is meer zoiets. Heb ik het idee. Hier [My farm rules] zit weer meer een spel in en dit [Life of a farmer] is weer meer om vragen te beantwoorden voor jezelf en je tot nadenken te zetten.

MG: En je twijfelde een beetje of het nou hetzelfde spel was of niet...

MS: Nou hier [My farm rules] staat heel duidelijk in wat je doet, en hier [Life of a farmer] staat eigenlijk, er staat wel duidelijk wat je doet, maar er staat niet wat dat inhoudt. Dus het kan zijn dat dat inhoudt wat bij die [My farm rules] staat, het onderhouden van je land, je dieren verzorgen en je producten verkopen. Maar het kan ook heel wat anders zijn. Dat je dilemma's voorgelegd krijgt ofzo. Dat weet ik niet. Dat kan ik niet uit de tekst halen.

[System-generated and consumer-generated [WhatsApp] recommendations are shown simultaneously]

MG: Als jij moet zeggen wat de bron is van de aanbeveling, waar de aanbeveling vandaan komt. Wat zou je dan voor die zeggen en wat zou je dan voor deze zeggen?

MS: Dit [system-generated] komt vanuit cookies, dat je computer opslaat wat je doet. Dat je op een site spelletjes aan het doen bent en dat dit voorbij komt als reclame. En recht [consumer-generated] is meer een soort mond-tot-mond, vanuit vrienden. Iemand speelt het en die vindt het leuk, dus die geeft het door. Het komt van dezelfde site zie ik. Maar dat komt waarschijnlijk omdat het spelletje op de site staat. Maar dit [system-generated] is mee gebaseerd op wat je vaker speelt, en dat [consumer-generated] is meer gebaseerd op, iemand vindt het leuk en vindt dat iemand anders het ook moet proberen.

MG: En vind je de plaatjes realistisch lijken?

MS: Ja links [system-generated] wel sowieso. Rechts [consumer-generated] ook wel. Ze zijn allebei wel realistisch. Alleen... ik vroeg me even af, doen mensen dit [consumer-generated]. Maar dat zal best, dat mensen dit doen. Ik doe dat nooit, maar het ziet er wel echt uit. Ik zou me wel voor kunnen stellen dat iemand mij dit stuurt. Dat hoeft dan niet per se een spelletje te zijn, maar mensen sturen sowieso wel dingen door van wat ze hebben gedaan. Dus dat kan ik mij wel voorstellen, ik vind beiden wel realistisch. Dit [system-generated] gebeurt gewoon heel veel en dit [consumer-generated] gebeurt denk ik ook heel veel. Bij andere mensen, die daar wel heel erg mee bezig zijn.

Interview 5

Interviewer: Marloes Groen (MG)

Interviewee: EP, female, 28 years old

Nationality: Dutch

Educational level: Master's degree (obtained)

Date and time: April 19th, 2022, 13.00 hours.

Location: Groningen, in person

Set of stimuli used: Version 3

MG: Speel jij spelletjes op je telefoon of iets anders?

EP: Héél af en toe. Heel lang geleden heb ik de Sims gedaan. Heel even Candy Crush, met name op reis eigenlijk, in de bus enzo. Omdat je dan de tijd moest doden. En er is een spelletje dat je van die buisjes hebt en dat je de kleuren dan allemaal in dezelfde buisjes moet krijgen. Dat staat op mijn werktelefoon, voor als ik een saai overleg heb. Maar dat heb ik ook al heel lang niet gespeeld.

[Description in hedonic x explicit condition is shown]

EP: Wat mij al meteen opvalt is "Why" in de titel. Meestal is het hoe, hoe je iets gaat doen, en niet de waarom vraag. Ik zou gewoon zeggen "The chicken that crossed the road" of zoiets.

MG: Wat gebeurt er als er waarom staat?

EP: Dat triggert me wel om even te lezen, waar gaat het nu eigenlijk over? Want kennelijk zit er iets achter. En eerst dacht ik "Klopt de titel wel?" Maar dat heeft er ook mee te maken dat de meeste spelletjes die je speelt zijn gewoon dom. Maar hier staat dat het een bepaald doel heeft. En de meeste spelletjes hebben niet dat. Geen maatschappelijk doel. En deze heeft dat wel. Zo komt dat tenminste over. Wat me opvalt is vijf minuten. Dat vind ik knap, om dit doel te bereiken. Daar ben ik dan wel benieuwd naar. Al weet ik niet of ik het zou gaan spelen.

MG: Wat maakt dat je dat niet weet?

EP: Omdat ik toch andere prioriteiten stel in de tijd dat ik heb. En anders zou ik denk ik liever buisjes vullen, gewoon lekker dom spelen.

MG: Wat verwacht je van dit spel, stel dat je het zou spelen?

EP: Het lijkt bijna een beetje een soort, want er staat ook je moet met andere dieren praten, dat het een soort van... Je hebt ook van die spellen dat je met mensen praat en dan moet je voor keuze A of keuze B kiezen. Een soort real-talk. Zoiets stel ik mij voor. Dat je ergens rondloopt in een gebied en dat daar allemaal dieren rondlopen. Eigenlijk ook een soort van Sims dan, dat je ernaartoe loopt en dat je dan vragen stelt om deze vragen te beantwoorden.

MG: Vind je de tekst begrijpelijk?

EP: Ja. En dan is de vraag of de gemiddelde persoon het kan begrijpen, dat weet ik niet. Woorden zoals persuasive... it aims... ik weet niet of iedereen dat zo begrijpt. Maar het verschilt heel erg, als je een studie in het Engels hebt gedaan dan snap je dit wel. Maar als jij MBO of HBO alleen in het Nederlands hebt gedaan. Tenzij je veel games speelt.

[Description in eudaimonic x explicit condition is shown]

EP: Deze is wat actiever geschreven. Meteen de eerste zin en de laatste zin. “Your way of viewing the world will be challenged”. Wat meer overtuigend. De manier van schrijven. Ik weet nog steeds niet of ik het zelf zou spelen. Maar ik vind het meer overtuigend geschreven. Dat je probeert mensen te prikken om dit spel te gaan doen. De woordkeuze en hoe de zinnen zijn opgebouwd is overtuigender. Meteen hoe die eerste zin is opgebouwd.

MG: Want wat zegt die eerste zin jou? [Gain some insight...]

EP: Meteen inzicht krijgen. Een beetje een manier van spelen denk ik, of een doel.

MG: En qua verwachtingen van het spel op basis van deze tekst? Veranderen die?

EP: Nou het is wel dusdanig geschreven dat je denkt van nou. Ik vind wel dat dit hogere verwachtingen wekt. Door dat je gechallenged wordt, dat je inzicht krijgt. Een hogere verwachting van het spel en ook van mij als speler. Bij die andere was het meer, dit is het spel en kijk maar. En hiervan heb ik zoiets van, mijn view of the world wordt uitgedaagd, dus er wordt ook meer van mij verwacht. En vervolgens dus ook van het spel, want dat doet het spel dus met mij.

MG: En nog steeds begrijpelijk?

EP: Ja. En de inhoud van het spel verandert niet, alleen de manier van omschrijven.

[Description in eudaimonic x obfuscated condition is shown]

EP: Hier is weggelaten dat het om refugees gaat. Dat valt meteen op. Dat maakt dat ik denk, work and life struggles is wel heel breed. Maar het kan ook dat het mensen aanspreekt, mij nog steeds niet hoor, maar omdat je misschien handvatten krijgt om met die dingen om te gaan.

MG: En om welke reden spreekt het jou dan niet aan?

EP: Dat ik niet zo van de spelletjes ben. Ik zou niet, als ik ergens mee zit in mijn werk of privé, een spel spelen om daar mee om te gaan. Het heet nu adventure game. Daar leg je ook wel een bepaalde verwachting denk ik, je gaat iets avontuurlijks aan.

MG: Wat zie je voor je?

EP: Nou dan zie ik dat die kip over een klif ofzo moet springen. Maar dat is weer raar in mijn hoofd met die work and life struggles. Ik weet niet zo goed hoe ik dat moet rijmen.

MG: Want wat verwacht je dan van dit spel? Hoe ziet dit spel eruit?

EP: Nog steeds hetzelfde, maar dan zonder de refugees erbij. Of tenminste, dat dat je hoofdmoot is dat je daar bewustwording voor wilt creëren. Hoe het spel dat trouwens doet... geen idee. Dat is echt een groot vraagteken. Nee, ik zie niet zo goed hoe je dat doet, die bewustwording.

MG: Zijn er nog andere dingen die je opvallen of waar je aan moet denken als je dit leest?

EP: Ik ben vooral benieuwd, waarom kies je zo'n spel, én met een kip, om die bewustwording te creëren. Het roept vragen op. Waarom?

[Description in hedonic x obfuscated condition is shown simultaneously with the description in eudaimonic x explicit condition]

MG: Als je ze zo naast elkaar ziet, wat voor gedachten komen dan in je op?

EP: Ten eerste vind ik het wel heel spannend... het is vijf minuten, maar je wilt wel blijven spelen. Dat zie ik niet helemaal. Het is als je ze samen ziet, het lijkt me gewoon een heel ander spel, nee dat niet per se, maar de ene [eudaimonic x explicit] omdat die gaat over vluchtelingen en die andere [hedonic x obfuscated] gaat veel meer denk ik om het geheel. En misschien ook om jezelf, of een vriend of vriendin, of familielid die met die problemen zit. De ene [eudaimonic x explicit] gaat over sympathie, de andere over awareness. Dat vind ik ook twee hele verschillende dingen. Sympathie gaat veel meer over dat je er zelf ook een goed gevoel bij hebt en awareness kan ook gewoon zijn dat het een bewustwording is, maar dat je er zelf niet echt iets mee moet. Maar als je sympathie voor iemand hebt, dan voel je daar iets bij. En dat heb je bij awareness niet, dan is het gewoon een bewustwording van het feit dat die problemen er zijn bij mensen. En daar hoeft je niet gelijk wat van te voelen. En ik vind sympathie wel een heftig doel, terwijl awareness in mijn ogen een veel beter doel is.

MG: Wat maakt hem beter?

EP: Omdat je daar geen oordeel over hoeft te hebben. Sympathie vind ik wel een heel... als je dat kan bereiken, zo makkelijk, bij mensen, waarom is dat niet eerder ingezet? Terwijl, awareness is al een moeilijk doel op zich om dat te bereiken. En ik denk met die laatste zinnen, dat dat hele andere mensen aanspreekt. De ene [hedonic x obfuscated] zijn mensen die gewoon een dom spel willen spelen, gewoon door blijven gaan. Een beetje dat als je zoveel levens hebt, dat je zo graag door wilt blijven gaan dat je maar wacht tot je een nieuw leven hebt. En daar [eudaimonic x explicit] gaat het ook veel meer van dat je... Dit lijkt meer kwalitatief in plaats van kwantitatief. Want jij wilt jouw zicht op de wereld er in meenemen in het spel. Dus het is niet zomaar iets doms. En bij die andere [hedonic x obfuscated] laatste zin denk ik, dit is gewoon dom spelen.

MG: En hoe zou je iets “niet doms” dan omschrijven?

EP: Ik ben dan heel benieuwd hoe je dit dan gaat doen, met die “viewing of the world”. Ik zou dit niet in een spel kunnen omschrijven, want daar heb ik ook niet genoeg voorbeelden van, van wat voor spellen er allemaal zijn. Er zijn vast spellen die er zijn om bewustwording te creëren, die niet dom zijn. Maar dit [hedonic x obfuscated] klinkt gewoon veel meer als “je hebt zoveel levens”. En dan wil je de heel tijd door blijven gaan. Dus dan koop je extra levens.

MG: Nog meer dingen die je opvallen?

EP: Ja trouwens die eerste zin is daar ook... “gain some insight” gaat ook heel erg met die viewing of the world. En “escape daily life”, ik denk dat heel veel mensen domme spelletjes spelen om even weg te zijn uit het dagelijks leven. Dus ik vind dat het wel goed aansluit voor beiden, de eerste bij de laatste zin. De doelen om het spel te spelen voor mensen zijn voor beiden anders. Die [eudaimonic x explicit] lijkt kwalitatief meer te zijn, dat het spel veel meer oproept. Dat inzicht en hoe jij het zicht op de wereld mee neemt en dat dat uitgedaagd wordt. Terwijl deze [hedonic x obfuscated] is gewoon, je wilt gewoon door blijven spelen en even weg van de wereld zijn.

[Descriptions of “Get out of here” and “Let’s escape!” are shown simultaneously]

MG: Als je een keuze zou moeten maken, welke zou dan je voorkeur hebben en waarom?

EP: Links [Get out of here]. Dat is voor mij wat helderder wat het is, met zo’n escape room. Omdat je weet wat dat is. En hier [Let’s escape!] ... wat zijn dan die uitdagingen? En moet je dan de hele tijd wegrennen voor je vijanden? Links is voor mij meer tastbaar, ik snap beter wat ik daar moet doen.

[Description of “Back and forth” is shown]

MG: Als je dit leest, roept dat vragen op? Of is het begrijpelijk?

EP: Ik ben dan wel aan het invullen wat “controls” is... ik denk gewoon de toetsen. Dat is het enige.

[System-generated and consumer-generated [WhatsApp] recommendations are shown simultaneously]

MG: Als je zou moeten zeggen waar deze aanbevelingen vandaan komen, wat de bron is. Wat zou je dan voor links en wat voor rechts zeggen?

EP: Dit [consumer-generated] van iemand die dit heeft gespeeld en die in je contactenlijst staat. Leuk ook dat daar 5G staat, dat valt op, dat ben je niet gewend. En dit [system-generated], dat is van een algoritme in je telefoon. Hoe wij ook aan alle real-life verhalen op Facebook komen, omdat wij ergens op geklikt hebben. Dus de ene is algoritme en die andere is iemand die je blijkbaar kent. Want het lijkt me niet, kijk je kan wel eens op Facebook dat iemand wordt gehackt en dat er dan zo'n bericht wordt gedeeld. Maar het lijkt me niet dat een hacker dan vervolgens dan ook nog antwoord geeft op jouw vragen [zoals in consumer-generated], dus ik denk dan dat dit geen hacker is.

MG: En vind je ze als screenshots er realistisch uitzien?

EP: De linker [consumer-generated] ... ik zou eerder verwachten “download dit uit de appstore”. En dit [system-generated], dan moet je echt op die site al zitten, die Itch. Maar als je daarop zou zitten, dat zou ik het wel verwachten. Maar dan zou ik dus weer eerder verwachten dat het in de appstore ofzo zit. Maar als je hier [Itch.io] op zit, dan kan het best. Want dit gebeurt natuurlijk ook bij Netflix, bij Spotify gebeurt dit ook. Dus dat zou ik wel verwachten. Maar dan moet je wel gebruiker zijn van.

Interview 6

Interviewer: Marloes Groen (MG)

Interviewee: LH, female, 25 years old

Nationality: German

Educational level: Master's degree (currently pursuing)

Date and time: April 26th, 2022, 09.15 hours.

Location: Online

Set of stimuli used: Version 3

MG: Do you play games, digital games on your phone or computer? Or used to?

LH: I used to play Sims! I also play Sims a lot now, if you have a rainy day and nothing else to do. More because of the nostalgic feeling, not because of the play itself. I also do not have the newest versions. And apps digital games I played a lot when I was a teenager. The hyped ones, like Food Ninja, Train Hopper, something with a shark... and Temple Run. So, I had some games, for when you were bored or at school during breaks. Nothing serious.

[Description in eudaimonic x explicit condition is shown simultaneously with the description of "Back and forth"]

MG: If you had to make a choice between these two, which one would you pick?

LH: I personally would say I would choose the Back and Forth. For me, gaming is more connected to having fun. I know that there are also persuasive games that should teach you something, but I think that if you want to get something taught, it is nicer if you play the game and then in the end you can reflect yourself. And then realize: "wait, there was a meaning behind it". Because I think the first one, the Why did the chicken cross the road?, is already taking so much from that experience. By saying it is a five-minute game, so you know already that after five minutes it is over. You know already that it is persuasive, so you should somehow be influenced. And the thing is, I think that somehow if people know they are going to be influenced, they try to block this. So, they will play, but think "I will definitely not be listening to anything the play says". So, they are blocking this. And it also says something about sympathy for the refugees and migrant workers. And I think you could say something like this, or give a hint, but it is too much now. It takes the experience away. It is as if I already have played the game, it gives away too much information. It will be difficult then for people to get persuaded and to reflect on themselves. And maybe they will also not play the game anymore, because they already know what is going to happen. They might have different associations with the games. Like the right one, the Back and Forth, sounds like fun, they do not know yet what is coming. And the left one you already know what is happening, so should I even play the game still? But the one good thing about it is that you wonder "why is it a chicken? What is the link with refugees?" So, I would be still looking into it, to see how the connection is made.

MG: What do you expect of these games? What do you expect it to be like?

LH: For Back and forth, based on the name I would say I have to go somewhere, ask something. Maybe get a challenge. And then you have to go back and deliver that answer or challenge. And then have to go somewhere else and do something, but always come back to one point. More like a quest, I would say. It could also be, but I am a little bit biased because on the left one [Why did the chicken cross the road?] it says you have to ask questions, but I would say in the right one [Back and forth] it did not say something with questions, it just says with each crossing you gain points. So, I would say I have to go over a street and then if I do that without dying, I get points.

MG: You also refer to the talking to the other animals, from Why did the chicken cross the road? Do you see them as one game with two different descriptions? Or do you see them as two different games?

LH: I see them as two different games. Because Back and Forth says you have to go over a street and try to not die, it is more about challenging yourself. And the other one says something about questions. It is maybe more like a riddle, like I have to find out the answer. It could be that they are the same but based on the descriptions I would say that it is two different games.

[Description in hedonic x obfuscated condition is shown simultaneously with the description of “Back and forth”]

LH: I still like the Back and forth more, but for a different reason. Because the Why did the chicken cross the road? says something about “it is an enjoyable experience about work and life struggles, it raises awareness, you will have fun”. And I think this sounds like you have to sell this game, because it is so boring, and no one wants to do it. So, I have to tell them “You will have fun, I am sure of it”. It is like the teachers back in high school who said that a tour trip to like a physics museum, they would say to the students who do not like physics “you will have fun! Trust me!” So, it feels like this text wants to get me into liking this game. The other one [Back and forth] explains what the game is about, it says “but watch out”, I have the feeling this is less persuasive. They say this game is made for your entertainment and I think games are still made for entertainment, even if they want to give you a specific message. It is still a game, you have to like it, or you will not play it further and not get the message. It has to somehow be fun. There was this one game introduced once about picking cotton, to raise awareness for child slavery. And that was a game you would maybe do for one minute, because nothing really happens, it is not really interactive. So, I would say you get the message, and you think about it, but it is not very interactive and like a game. So, I like the back and forth more, it is more straightforward and not so persuasive about you will have fun. If I would play, I would play that.

[Descriptions of “My farm rules” and “Life of a farmer” are shown simultaneously]

LH: Just based on the headings, I really like the My farm rules. And based on the texts I would still like that one more. Just based on the preference that I like games more that entail multiplayer options, that I can compare stuff with my friends and win prizes. I like that more. But also, the Life of a farmer sounds very nice, if you like puzzles and discovering. I would say I would play both, both descriptions are very nice. I also have the feeling that they do not tell you too much, just explain what the game is about. So, you can choose based on what you are in to.

MG: And you do again perceive them as two different games I understand?

LH: Yes, I definitely do. Because one says something about challenges and puzzles and the other one says something about maintaining land, take care of animals and sell your products. That is not mentioned in the other one, so I think it is different. Based on these descriptions I would say it is two different things.

[System-generated and consumer-generated [WhatsApp] recommendations are shown simultaneously]

MG: Two recommendations. What would you say the source of each is?

LH: I would say the right one [consumer-generated] is a recommendation of a friend. Otherwise, it would be creepy if some stranger texted me this on WhatsApp. And the left one is from a gaming website or maybe a blog or something, that just tells you this game is nice. I personally would listen

to both, that depends on the reputation of the website. Because I for example know from friends that they always look on this website for games.

MG: Do you think they are realistic? Or is there anything you notice that can be improved?

LH: I would say the WhatsApp looks realistic. I assume that for both that if you click on the link, you can play it. Or download it in the Appstore. The Itch.io looks a bit like the Vice website. I would not know what to do better. Maybe a different picture or something. I would say the website makes sense.