

# Gaming for Social Change

Playing Persuasive Video Games to Raise Awareness

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## ABSTRACT

Persuasive games have the potential to change their players' attitude towards a political or social issue in a more effective way than other media platforms. The interactive nature of a game provides a unique possibility to influence its players and contribute to social change. However, empirical research in the field is still rare and studies involving a direct comparison with another medium are even more limited. The present study presents empirical findings on the persuasive game *Against All Odds*, developed by the United Nations High Commissioner for Refugees (UNHCR) and draws a comparison with the VICE documentary *Europe or Die* to provide data examining the effects of two media platforms regarding attitude change towards migration and refugees. With uses and gratifications theory as well as identification as guiding concepts, this paper examined the factors leading to enjoyment and resulting in attitude change after playing *Against All Odds* and compared the results to the second group of participants who were invited to watch the documentary instead.

Through semi-structured individual interviews the participants' perception of the medium and attitude towards migration and refugees was analyzed in relation the game and the documentary. The results of the two groups were then compared to identify commons and differences regarding enjoyment and attitude change after the experience with the medium. The results indicate that the interactive feature of the game and the personal perspective provided through an avatar had an impact on both game enjoyment and attitude change that differ from the effects of watching the documentary. Participants playing the game were more likely to take on a personal perspective when talking about the issue and more often reported understanding for the refugees, while participants watching the documentary were more likely to address migration as a general topic rather than talk about the individual refugees While some participants perceived a lack of challenge in the game, most players found at least one aspect that was enjoyable for them, most frequently information-seeking and decision-making. Social facilitation and a reflection on the participants' personal behavior and attitude surfaced in both groups, whereas social facilitation was more common after watching the documentary.

The implications of these results are discussed for future scientific research and the game industry.

**KEYWORDS:** *persuasive games, attitude change, uses and gratifications, identification, computer and video games*

# 1. Introduction and Research Question

## 1.1 The Value of Video Games

Video gaming is a 70 billion dollar industry, and more than 1.2 billion people around the world play video games today (Diele, 2013). The games that are available range all the way from Candy Crush to The Sims, from World of Warcraft to Grand Theft Auto and Counter Strike to Need for Speed. Gaming takes up a huge part of entertainment today; it engages millions of people of all ages everywhere in the world. The scientific research on video games and the effects on its players have been growing as a field of study in various academic disciplines. A field that caught academic attention is the use of video games in an educational setting (De Gloria, Bellotti, & Berta, 2014; De Grove, Van Looy, Neys, & Jansz, 2012; Gee, 2003). Others have focused on political and social issues addressed through video games (Alhabash & Wise, 2012; Neys & Jansz, 2010). While video games have been attributed with a contrary position to learning or being productive for much time of their existence, their value and positive effects have been identified in various areas in more recent years. With academics paying more and more attention to the value and benefits of gaming, it becomes apparent that gaming is much more than just passing time in between productive activities. "*Gaming is going beyond gaming*", as Gee (2010, p. 4) has put it, and indeed we have reached a time where videogames are and have to be seen as a valuable and productive part of our popular culture, especially considering the speed in which game design, production and consumption have been growing in recent years. The overall presence of computer games and their immense popularity among all age and social groups call for further academic research to understand their significance and advantages for individual players and society at large. Several terms are often used, sometimes interchangeably, to describe the type of game this study is focusing on; video game, computer game, online game or mobile game are some of the most commonly used expressions. While the present paper is concentrating on online computer games, the term *game* will be used as an abbreviation for reasons of simplicity.

## 1.2 Serious Games: More than Entertainment

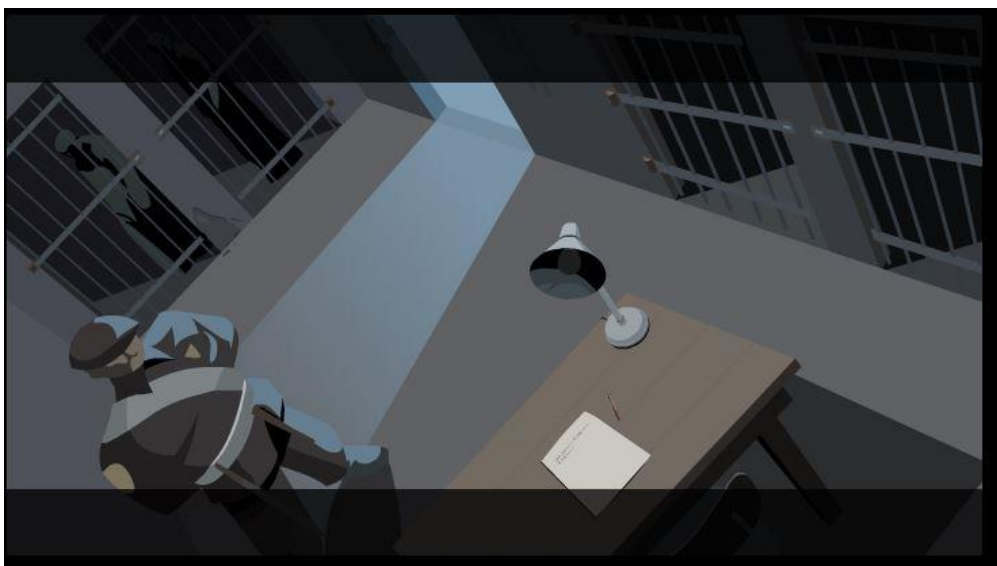
A serious game, in its most basic definition is a game "*in which education (in its various forms) is the primary goal, rather than entertainment*" (Michael & Chen, 2005, p. 17). However, any game can in a certain context be seen as a serious game, depending on the player's perception of it and their individual gaming experience, whether that was intended by the game designer or not. Any game is a form of expression and can communicate ideas, beliefs and information to its players, which means any game can teach something, making them a suitable tool in many different areas, including the promotion of political issues (Michael & Chen, 2005). Raessens (2010) identifies four elements that define serious games: (1) the game was designed with a purpose in mind; (2) it is used in a specific context; (3) it addresses specific issues; (4) it can have effects in real life. Serious games are focused on knowledge transfer, skill transfer, attitude transfer or a mix of all three; going beyond the concept of pure entertainment. Persuasive games, as a sub-category of serious games and the particular focus of this study, are defined by Jacobs, Jansz, & Kneer (2014, p. 2) as a game where the "*primary intention is to change an attitude towards a concept or object that is separate from the game into a predefined attitude goal state.*"

The game *Against All Odds* which this study focused on fulfills these criteria: it was designed with the purpose to raise awareness, has been used in several different environments (classroom, nonprofit), specifically addresses migration and is promising to have real life effects on its players. This study aims to compare the effects of the persuasive game *Against All Odds* (AAO) to the effects of a documentary which also aims to raise awareness about migration. For this purpose the VICE production *Europe or Die* was chosen because of its similarity to the game in both content and length. Two groups of 8 participants each were invited to either play the game or watch the documentary after filling out a short questionnaire to determine their gaming behavior, general attitude towards migration as well as demographic information to ensure two similar groups. The following semi-structured interviews served to identify what made the media enjoyable and how it affected the participants' attitude towards refugees and migration. Given the personal perspective this study focused on, uses and gratifications theory and the concept of identification were employed to guide this research. The game and the documentary will be shortly introduced in the following section.

### 1.3 Against All Odds - Would You Survive as a Refugee?

In order to be fully able to understand this research and its purpose, the game used for the study is briefly introduced.

*Against All Odds* is a single player online game that can be played free of charge. The game is provided by the *United Nations High Commissioner for Refugees (UNHCR)* and is embedded in their online information campaign focused on migration issues, mainly forced migration from developing countries. The player chooses a refugee avatar and is offered three levels with four chapters per level, each dedicated to a different part of the refugee's journey from an unnamed developing country with an oppressive regime to an unnamed Western country. The first level begins with the establishment of the scenario in which the character needs to leave their home country for persecution by an oppressive regime. The second part shows various aspects of the dangerous journey itself. In the final level the player is confronted with refugee life after arriving in a host country. All levels provide *webfacts* which give additional factual information about the specific situation in which the player finds him- or herself at the given moment in the game. The ending is rather open and inconclusive, much in the spirit of the game mirroring the situation of the refugee characters and their uncertain future. Several informal gaming sessions of the researcher as well as of others not involved in the study showed that the game usually takes between 25 and 45 minutes to complete.



Screenshot Level 1: the Interrogation Room

## 1.4 Europe or Die - The Documentary

The documentary shown to a second group of participants (group DOC) *Europe or Die* was produced by the media company VICE and released in January 2015. The documentary consists of 5 parts, each portraying a different aspect of refugee life and a different location, namely various border regions of the European Union. The first part was chosen to use for this study and is commented by a VICE journalist who interviews various refugees, border patrol officers and activists, with the support of images showing refugee living conditions, border areas and town life in the border regions. The first part is 25 minutes long and ends with a trailer for the following part. The documentary can be watched online free of charge on various internet pages and has a total length of 100 minutes (VICE, 2015).

Both the documentary and the game are portraying migration and refugee life in a way that is meant to have an effect on the player and the audience respectively. The present study aimed to identify the ways in which the player is influenced by a persuasive game and how the effects of this particular type of game can be placed in comparison to other media platforms addressing social and political issues. The documentary chosen serves the purpose to put persuasive games in a larger context of how their impact can be seen compared to other media.

## 1.5 Research Question

Refugee and migration issues are increasingly dominating the global news due to historically high migration waves around the world, many migrating from Africa and the Middle East to the European Union (*UNHCR Global Trends*, 2014). Tragic incidents of refugees losing their lives to reach the European borders have made headlines repeatedly and as a result are discussed on many different levels. In addition, the public discourse is often leading to radical and even racist conclusions about these migrants (Bradley, 2014). A small number of persuasive games, namely *Again All Odds* (2005), *Darfur is Dying* (2005), *Food Force* (2005) and *Frontiers* (2012), as well as the mobile phone application *My Life as a Refugee* have since been developed to raise awareness and strengthen the players' empathy for the individual refugees and their understanding of the issue at large ("Frontiers - You've reached Fortress Europe," n.d.; Raessens, 2010; UNHCR, 2012).



The game *Against all Odds* was used for further research in this study to examine the potential effects of persuasive games on their players in comparison to other media platforms. The research is guided by uses & gratifications theory and the concept of identification with media characters. Based on these concepts and the interview data resulting from them, the study aims to contribute to a better understanding of the effects of persuasive video games on their players in comparison to other media addressing social and political issues, namely the documentary *Europe or Die*.

The research question following the previous paragraph is as follows:

**RQ:** *How does playing the persuasive game 'Against All Odds' influence the players' attitude towards refugees in comparison to a documentary of similar content?*

Attitude is mainly defined by the act of evaluation. This evaluation can be towards oneself, other people or issues and causes and can be of positive or negative nature (Petty, Wegener, & Fabrigar, 1997). The research question was answered using qualitative interviews after 16 participants were invited to either watch the documentary or play the game. The study focused on the player perspective to analyze the effect on the player's attitude towards refugees. This was done by analyzing their perception of refugees and migration after playing or watching and comparing the interview data to the pre-questionnaire and by comparing the interviews to each other to identify common themes and patterns concerning enjoyment as an outcome of the experience and attitude change. It has been argued that games can be a more efficient way to achieve an attitude change than other media products due to their interactive and engaging elements (Bogost, 2007). The playful activity in a game can engage its players and motivate them to keep playing, with the possibility to experience the interactivity of a game to result in role-taking of its players and therefore have an effect of their attitude towards social or political issues (Peng, Lee, & Heeter, 2010). To further elaborate on this distinction, a second group of participants was invited to watch a documentary containing the same factual information as the game. This comparison in attitude change of the two groups is expected to give further information about the effectiveness of persuasive games in comparison to other media products, in this case the documentary *Europe or Die* (VICE, 2015), which portrays refugees and their journey from various countries into the European Union and is similar in content and length to be comparable to the game AAO.

## 1.6 Social Relevance

Forced migration has been perceived as a growing problem over the past few years. Refugees in ever growing numbers are trying to reach European soil from Africa as well as from the Middle East. Civil wars, famines and droughts are forcing hundreds of thousands to leave their home and embark on the often life-threatening journey to safer countries and often to the European continent (*UNHCR Global Trends, 2014, UNHCR Population Facts, 2013*). These growing numbers of refugees increasingly lead to conflicts in Western societies, from the encounter of everyday racism to the increase of right wing and national political parties in various European countries, The Netherlands included (Lucassen & Lubbers, 2012). Raising awareness and strengthen sympathy for refugees and their difficult life situation is especially in these time incredibly important. Using video games to contribute to this goal is a promising field of study and able to add to a better mutual understanding through letting people take on the role of a refugee themselves and therefore encourage understanding for their situation, which makes this study relevant for society.

Today, 17% of the world's population is playing video games. When adapted to the part of the population that has online access, that number even increases to 44% and is expected to keep growing (Diele, 2013). Gamers are not a minority, nor are they exclusively teenager boys avoiding homework by playing Grand Theft Auto. Gamers are just as diverse as the population itself and the possibilities to reach them to address important social and political issues to eventually achieve change in society have not yet been fully exploited and the present study aims to contribute to that development.

## 1.7 Scientific Relevance

Research on persuasive gaming is promising in changing a player's attitude about a political issue while at the same time still being under-researched for its effectiveness (Bogost, 2007). The area of political games to encourage civic engagement and attitude change is also relatively new in academic research, but a promising field as case studies on the games *Darfur is Dying* and *Poverty Is Not A Game* have recently shown (De Grove et al., 2012; Neys & Jansz, 2010; Raessens, 2010).

The present study aimed to add to these studies and contributes to a deeper understanding of the effectiveness of persuasive games, particularly in comparison to other media addressing social and political issues to identify the most relevant features of this type of game. While the purpose of a persuasive game goes beyond pure entertainment, fun and enjoyment are crucial factors nonetheless, given that the game has to be appealing and attractive for the player to begin with. As a result, the evaluation of the game and its effects needs to focus on both enjoyment and the impact on attitude change to understand its characteristics which make the game successful as a whole (Bellotti, Kapralos, Lee, Moreno-Ger, & Berta, 2013). This research focuses on both enjoyment and attitude change and the relation between the two to contribute to the field of media research, which has long been studying media enjoyment and further applies it to a relatively new field - video games. By applying U&G and the concept of identification which have long been studied in media research from traditional media to more recently video games, the outcome of this study can not only be seen as relevant in the immediate field of game research, but also in media research at large, especially regarding the comparison with a documentary representing a more traditional medium. The research and the comparison can add to the development of game and media research and the understanding of where the field is heading in the future.

The national PGIC project (Persuasive Gaming in Context) aims to contribute to this field in researching the characteristics and effectiveness of persuasive games with the attempt to change the players' attitude about a particular topic. The project involves several Dutch universities, namely the Universities of Utrecht and Rotterdam as well as the Eindhoven University of Technology and will be carried out over a period of 4 years (Raessens, Huisman, Jansz, & Schouten, 2014). The present study forms a part of this national project and can be regarded as an important component that is promising to add valuable results to the research with a focus on the players' perspective. Particularly this focus is relevant, given that the project is also collaborating with the Dutch game industry. A better understanding of the effects of a persuasive game on the player will be relevant knowledge to be used in future game design, ultimately with the goal to develop a dynamic model for the design of persuasive games. The present study therefore not only promises to contribute to the research community, but also to support the progress in the game industry.

## 2. Theory and Previous Research

Uses and gratifications theory (U&G) and the concept of identification will form the theoretical basis for this study to evaluate and explain the use of media and video games in particular, specifically applied to the Against All Odds (AAO) study. U&G has been proven to be an appropriate theory in both television and more recently in game research to understand a person's motivation to use media and is therefore expected to be suited for the present study and the research question guiding it.

Enjoyment has often been identified as a key gratification in U&G. Individual needs and contextual factors influence a person's decision to use a certain medium, including video games, depending on their personal expectation of enjoyment that potentially results from it (Sherry, 2004). Enjoyment will in this case be referred to as an outcome rather than a sought gratification given that the players technically did not choose to play the game themselves but rather agreed to be part of a research where they were confronted with it. Enjoyment therefore is an intended outcome to keep the participants motivated to play once they were introduced to the game.

Previous research and its results suggest that an individual's motivation to play is strongly dependent on many factors, including the media type, which makes empirical research even more needed, especially in an emerging field like persuasive gaming (Sherry, Lucas, & Greenberg, 2006). In order to understand and evaluate the effectiveness of games, it is therefore necessary to identify what motivational factors are relevant for people to play. Most research in the field is focused on concepts applied to entertainment games, with only little attention to persuasive games in particular. However, some of these gratifications are likely to be relevant for persuasive games as well and are therefore included in this study. An overview of the most relevant gratifications in gaming is provided in order to contribute to an understanding of the effects of persuasive games on the player's attitude by applying them to the AAO study. In addition, regarding the comparison with the documentary, U&G will also be addressed in relation to television to identify relevant factors of enjoyment for participants of group DOC.

Identification as a concept has long been employed in media research and identified as a relevant factor in both television and more recently in game research (Van Looy, Courtois, De Vocht, & De Marez, 2012), which makes the concept relevant for this study since both game and television form a part of the research. Identification can therefore be expected to play a role in both group GAME and group DOC. Scholars have suggested that identification with game characters is connected to role-play and differs from other media in its interactive nature, allowing the gamer to assume an active role in the game environment rather than the role of a passive audience (Cohen, 2001; Van Looy et al., 2012). Whether this resulted in a different outcome for the two groups in this study will be discussed in later chapters.

To provide a structure for the research, a conceptual model will be presented. The model served to develop a relevant research question and helped to select the most appropriate methods of analysis for the research.

## 2.1 Uses and Gratifications Theory

Uses and gratifications theory (U&G) assumes that the user is an active agent who makes conscious choices about their media consumption based on individual motivations (Ruggiero, 2000). Katz et al. (1973) outlined what they see as main objectives of U&G and identified three main points. First the question of how individuals use media to gratify their personal needs; second, to understand their motivations for media behavior which is guided by social and psychological factors. Finally, U&G is assumed to discover the consequences that these individual needs and behaviors bring with them. The theory is therefore an appropriate perspective to apply to understand the appeal of games as a specific media form and can help to understand why some people are attracted to video games and what fulfillment they seek from playing them (Shao, 2009). Social as well as psychological factors differ from person to person and as a result the gratifications sought through media use differ between individuals and lead to varied media consumptions.

Uses and gratifications theory originated early in communications research with the aim to examine media use to gratify the users' needs depending on their social environment (Katz et al., 1973). An increased academic interest in the audience's media behavior like listening to the radio or the consumption of daily newspapers led to the suggestion that U&G theory emerged in the 1940s, although an exact time is difficult to determine (Ruggiero, 2000). Gratifications are specific not only to the content but also to the medium itself, with numerous studies focusing on radio, television, comics, newspapers and all other kinds of media. While earlier research did not take into account the links between individual gratifications and often ignored the interrelationships among media functions. The most common approach was initially the examination of the respondents' answers about media functions and the categorization of gratifications with the aim to apply labels for better understanding (Katz et al., 1973). The nature of this method, the fact that the results were mostly self-reported from the respondents is also one of the major points of critique of U&G research during its initial years (Ruggiero, 2000) and partly remains until today (Bryant & Miron, 2002). However, it is argued that precisely the self-reported results are what made this approach suitable for this study. Using qualitative interviews, the main purpose of this research is to identify the view of the individual participants and their personal perception of the game or the documentary.

More recent research in the field aims to identify broader patterns and origins of the needs that generate certain media expectations which in return would lead to patterns that can be generalized beyond the group that was studied and result in a broader understanding of where gratifications originate and why, as well as why they are gratified in certain ways (Katz et al., 1973). The identification of social and psychological variables became a more prominent part of U&G research in comparison to the early stages and included a number of cross-disciplinary studies as well as a more differentiated approach that focused on sought as well as received gratifications, (Ruggiero, 2000).

U&G examines media use from a user perspective which makes it a suitable approach to be employed for this study since it also takes on a user, specifically a player perspective to examine attitude change through video games (Shao, 2009). This perspective makes U&G very individualistic, which made it suitable for this qualitative study.

Previous studies have found a number of motivations that seem to be relevant in a larger context, with patterns and themes emerging that made it possible to identify motivations that are relevant for many people. However, it has been criticized that social and psychological backgrounds are still lacking clear concepts. Needs, behaviors, motives and consequences are often not defined clearly enough which makes the conceptual development difficult, especially since different researchers often assign different meanings to the same terms. As a result many aspects of the research area remain unclear (Ruggiero, 2000). U&G also assumes that respondents are able to accurately describe their motivations to use a certain medium (Katz et al., 1973), which has been argued by scholars that this kind of self-reporting merely shows an idealized perception of the individual rather than an accurate description and may therefore not represent the actual experience (Bryant & Miron, 2002). In the light of a qualitative study, though, self-reported data is a crucial part to understand an individual's perceptions, experiences and opinions and therefore a relevant aspect of this study. Further, by comparing the interviews to each other several common themes and patterns emerged that illustrate how this approach is appropriate to identify motivations from the data that are relevant to a larger number of participants beyond the group of participants themselves and therefore contribute to a better understanding of phenomena in society at large. An accurate description and a representation of the actual experience was not only not required, it was also not sought given that the individual perceptions are why this specific approach was used for this study.

Although the field of video games in the context of U&G is relatively new, it can be expected to contribute to a better understanding of media use, specifically video games, and their potential effects on attitude change through persuasive games in particular. Regarding the documentary, U&G is also a suited approach to examine the effects on the audience in a comparison since it has long been employed in television research and therefore provides factors that are relevant to examine the participants' perceptions, opinions and understanding of the content and its addressed issue. Therefore, U&G will be addressed in more detail regarding the present study in the following section.

## 2.2 U&G in Game Research

Since U&G has been employed to examine various media as well as the internet and is part of communication research, it is an appropriate theory to employ in the field of game studies, more specifically online computer games since these often have a social component and include a high level of interactivity. They are further oriented on experience and focus on the user perspective (Wu, Wang, & Tsai, 2010), all of which also applies to game research and the AAO study in particular. Motivational research regarding games can contribute to a better understanding to what makes video games, included persuasive games, attractive and appealing by identifying key gratifications that effect a player's motivation to play a video game (Wu et al., 2010). The comparative nature of this study also aims to identify how exactly games differ from television content regarding attitude change which further contributes to serious games research.

Jansz, Avis, and Vosmeer's (2010) research on gender differences in motivation showed how, using a uses and gratifications approach as a framework, motivation is largely dependent on individual conditions and characteristics. Playing is a meaningful activity and furthermore puts the gamer in a valuable position; it is through the player that meaning is created in the game. The meaning of a game therefore is dependent on the gamer involved (Egenfeldt-Nielsen, Smith, & Tosca, 2008). The context in which the game is played is crucial to the effects it has on the players. While the importance of context is relevant for all types of games regardless of their content, it is particularly important for games whose content can be seen as controversial, for example games that have a violent component. Especially games that contain violent elements can from a bystanders' perspective be seen as a medium enforcing violent behavior, while the player, embedded in a meaningful context, can perceive the same game in an entirely different manner. This will be relevant for the AAO study to some extent, which also contains the possibility of violence, although as a threat to the game character rather than the option for the players to use violence themselves.

Building on previous research and theory and with the nature of the game AAO in mind, several U&G factors were selected that can be expected to be relevant for the present study, in addition to the concept of identification.



### 2.2.1 Interaction

Interaction or social interaction has been argued to be a relevant gratification for online gaming and a key factor to keep players engaged in the game (Sherry et al., 2006; Wei & Lu, 2014). While interactivity is not limited to virtual environments, they are able to offer players the most engaging experience particularly due to their real-time response to the players' actions that often immediately shows them the consequences of their decisions in the game (Ahn, 2011), a possibility not offered by television, hence the experienced interaction of the control group DOC is expected to be more limited than in group GAME.

Although research specifically for persuasive games is still limited, multiple studies focusing on entertainment games have found social interaction to be a key factor for players to engage in a game and increase their playing time significantly. Jansz and Tanis' study on First Person Shooter Games (FPSG) also identified social interaction as a key gratification in enhancing gaming time among players (Jansz & Tanis, 2007). While AAO is a single player game, some aspects of interaction may still apply as the competition created in the game still results in different challenges where the computer-controlled game character, for example the military officers, create a kind of interaction that may even contribute to the creation of an embodied presence as described above. A virtual environment generally offers more possibilities for the player to stimulate his sensory systems in some ways, which can intensify the experience of embodiment and raise the question whether this will be able to influence the players' attitude in real life after the game is over, which is more likely in situations that are perceived by the player as particularly real and vivid, a state that is often described as presence (Ahn, 2011).

Presence, as defined by Lee (2004) is possible in an environment where the user is able to experience the virtual objects like they were actual objects; in a well designed single player game, where the computer-controlled opposing game character reacts in realistic ways and provides a certain level of competition (like an opposing human player would), it may be possible to reach a similar level of presence as in a multiplayer game with actual human interaction. Presence in game is suggested to be higher than in television (Lee, 2004).

It is a state that can be reached when the player senses to be part of a virtual environment that imitates experiences in real-life (Jennett et al., 2008), a feature a passive medium like television cannot provide in the same way as the interactivity of a game provides an experience that is often perceived as more vivid and real (Decock, Van Looy, Bleumers, & Bekaert, 2013).

While some studies suggest that players experience more enjoyment in a game when they know they play against other humans instead of a computer-controlled competitor or co-player (Weibel, Wissmath, Habegger, Steiner, & Groner, 2008), a well designed single player game with complex and meaningful responses from a computer-controlled opposing game character might also be promising to lead to similar results. Further, it is not only the interaction with other players that is relevant, but also the interaction with the content of the game itself and it needs to be seen and studied within its socio-spatial context (De Kort & Ijsselsteijn, 2008). Especially in the field of persuasive games, where the content is relevant to achieve attitude change, the content and its context in the game play a significant role.

Scholars have also stated that social interaction may be counter-productive to other in-game experiences, namely flow. As a state of concentration and absorption in the game, social interaction may interrupt the experience (De Kort & Ijsselsteijn, 2008). However, this would likely be heavily dependent on the nature of the game as well as the individual player and remains unclear due to a lack of empirical research. The present study contributes to this research area by addressing the interaction with other (computer-controlled) game characters and how the players perceived this experience.

Whether close ties among the players influence social interaction and the motivation to play and may lead to more play time, is a valuable suggestion although empirical studies have yet to find out (Hou, 2011). Especially games with a political message may benefit from findings in this area, when the pre-existing relationship of the players might facilitate a discussion about the political issue the game addresses.

This phenomenon was conceptualized as social facilitation, where the player is motivated to discuss the issue with others or to share the game with them, as opposed to individual facilitation where the player may develop the intention to obtain additional information about the issue addressed in the game, as was recently established empirically, although additional studies with more participants will be needed to allow for more comprehension in the future (Neys & Jansz, 2010).

Other scholars have argued that single player games may be more effective in certain games since the player is less likely to make decisions under the influence of co-players and their opinions (Wonneberger, 2009). People behave differently when they are more in control of the situation; a fact that can be beneficial for persuasive games where the player has to make tough and potentially controversial decisions about issues that are real for many in the context of migration.

It could be argued that the necessity to make own decisions without the influence of other humans may increase the emotional involvement of the player and as a result lead to a more intense gaming experience and a higher likelihood of attitude change. The results of this aspect will be addressed in more detail after the data analysis.

While the documentary watched by the control group DOC contains similar content then the game it is lacking the interactive element that is promising to contribute to a more enjoyable experience and may result in attitude change more easily than the more passive medium television. Traditional media are, besides entertainment, also providers of information that is consumed by the audience, leaving the consumers with little control or choice over what information to consume (Chung & Yoo, 2008) as opposed to AAO where the player can switch between different levels and make different choices that influence the game various ways, potentially leaving the player with higher perception of choice and control over the experience with the result of more enjoyment and the motivation to keep playing.

### 2.2.2 Control

Decision-making as a form of control is a main feature of AAO and often a key factor in distinguishing games from other media. A sense of control over the environment is often argued to be a relevant feature of video games and their appeal to players (Jansz et al., 2010; Sweetser, Johnson, & Wyeth, 2012). The possibility to lack or lose control in an activity does not worry the player, who is experiencing a state of self-unconsciousness while in the game, he or she is acting as the game character in the game environment rather than as themselves. When reflecting back on the activity after finishing the task or the game, however, the player will likely perceive his or her in-game skills to be acceptable and useful for the activity they have to master, a perception that is important for a positive self-concept which can motivate to keep playing and engaging in activities (Csikszentmihalyi, 2014).

In a video game, the situations the player is confronted with are controllable for him within the limits of the game design. The game has clearly defined rules and goals that the player must achieve in order to win, and a defined set of instructions and tools are supporting this perception (Csikszentmihalyi, 2014). AAO allows for some variance in control in that the player can choose certain actions for his or her avatar which can result in different outcomes, positive or negative, like the decision to take a friend without a passport on the journey which might lead to a successful outcome and move the game forward, or result in a setback that harms the player. Either way, the outcome is not entirely unpredictable and still allows for some control over the task.

Control is a feature that distinguishes video games from television and allows for a deeper sense of interactivity (Bostan, 2009) and was thereby expected to result in a different outcome between the two groups.

### 2.2.3 Enjoyment

The experience of enjoyment is identified as a core factor that makes games appealing (Vorderer, Klimmt, & Ritterfeld, 2004) and is one of the most popular gratifications of media usage. Sweetser, Johnson and Wyeth (2012) suggest a model of player enjoyment that is based on Csikszentmihalyi's concept of Flow and aims to understand a person's motivation to play video games. Flow is based on a state of contentment and concentration that can be reached through any activity that specifies an interaction with their environment. The activity can be of physical, emotional or intellectual nature, as long as it requires some skills that are used while acting in a limited area or environment (Csikszentmihalyi, 2014). Sherry (2004) identifies two factors that are relevant to create a flow experience through an activity: message difficulty and usage skills. When the players' skills do not match the difficulty of the game, a flow state is difficult to realize. This mismatch can be prevented in a game through training and familiarizing oneself with the task that needs to be solved. The game AAO, like other video games, offers its players the possibility to repeat certain levels and individual tasks if the player fails to solve them, thereby providing the chance to improve their skills and master the activity, which could contribute to the achievement of a flow state, which is characterized by a number of factors: the merging of action and awareness, concentration, the temporary loss of self-consciousness, a sense of control over the presented situation, an altered sense of time and the feeling of being rewarded by finishing an activity (Sherry, 2004). In order for the activity to merge action and awareness, it must first be feasible. The player needs to perceive the task at hand as achievable within their own skills and abilities (Csikszentmihalyi, 2014).

The game AAO fulfills this requirement (different levels, little prior knowledge required, rules are clearly established). AAO makes use of this by designing the game in a way that make them attractive for players with different skill levels and expectations, for example by offering different tasks and levels of varying difficulty. Concentration is reached in games when the established rules and game structure include what is relevant to the game and exclude everything else, letting the player focus on the task to be solved. While AAO does not offer a direct competition between individual players, the game is designed in a way that allows for various outcomes depending on the decisions the player makes and his level of skill during certain tasks.

The particular circumstances of a research study with participants call for special consideration concerning player motivation, since the players are not entirely independent in their decision to play the game and did not specifically seek out for that particular game at a particular time according to the gratifications they sought. The decision to participate in a study about video games may have been influenced by the general interest in video games or just the possibility to win prizes as a participant. Enjoyment will therefore better be understood as an outcome rather than a sought gratification in the case of this study. This naturally influences the conceptual model as well as the study design and will therefore place enjoyment on the other side of the conceptual model with the question what made the game enjoyable for its players.

### 2.3 Identification

Identification with media characters has been studied extensively in various types of media, its nature still remains unclear and is sometimes mixed up with other concepts, for example fandom (Cohen, 2001). Cohen (2001) also argues that identification should be seen as an experience rather than just a process, a state during which a media user can temporarily adopt the goals and identity of the media character he is confronted with. In line with this study, which focuses on a video game and thereby has a strong interactive component, Cohen's (2001) conceptualization of identification seems appropriate since he mostly focuses on sharing the perspective of the media character, in a sense of "*feeling with the character rather than about the character*" (p. 251), which is relevant for a persuasive game like AAO that aims at changing the player's attitude towards a complex social issue. Identification has been argued to have a persuasive effect by introducing the audience of different media to a new perspective that is different from their own, offering them new possibilities for understanding which may potentially result in a change in attitude or encourage pro-social behavior (Fox & Ahn, 2013; Kelman, 1961).

Identification is also argued to be a relevant concept that leads to enjoyment of a game and motivate its players to keep playing. When identification occurs with media characters, emotions and perspectives of the user can be extended (Cohen, 2001).

The interactivity of the game can overcome the distance between the players and the game characters which potentially contributes to a stronger identification, stronger than through a medium that mainly provides the possibility to observe (Klimmt, Hefner, & Vorderer, 2009).

However, given that the compared medium is a documentary featuring real-life footage of real people, some scholars have argued that this form of realism may lead to a stronger identification than with fictional characters (Eitzen, 2007). While these scholars usually refer to fictional television characters, it may be possible to have a similar effect in the case of fictional game characters depending on other features, for example the level of interactivity or avatar design, although research specifically for documentaries is lacking. Emotional response is an important aspect of identification with a media character (Cohen, 2001), but the emotions brought up can differ depending on the medium. Playing a game might be perceived as a happy experience, while the documentary may cause sadness instead, influencing identification with the characters and ultimately the change of attitude.

Based on literature, Van Looy, Courtois, De Vocht, and De Marez (2012) identified three dimensions in their World of Warcraft study to measure identification which are more specific to online games: (1) Avatar identification, (2) group identification (with the gamer guild) and (3) game identification (with the gaming community). The game used in the current study is a single player game and therefore group identification and game identification are less relevant in this particular case, while avatar identification is the most relevant for the AAO study. Avatar identification is further distinguished between 3 factors. The perceived similarity between the player and the avatar, the wishful identification that defines the players' desired similarity to the avatar and lastly the embodied presence that defines to what degree the player actually feels like he is the avatar during the game. Former research suggests that wishful identification is more likely to occur when the game character shares the same gender or similar attitudes as the player, especially but not exclusively with adolescent players (Hoffner & Buchanan, 2005).

In the light of the diverse media landscape today and the numerous possibilities to be confronted with different media characters, the avatar through which a user acts in a virtual environment does not have to resemble every aspect of the players' personal features.

Depending on their needs or motivations, the user may choose an avatar instead that resembles an ideal or potential feature of himself (Fox & Ahn, 2013).

Perceived similarity refers to the degree to which the player perceives similar attitudes or characteristics with his avatar and also seems to be related to the wish to imitate the actions and attributes that others are showing. Since studies have also shown, though, that people often tend to like characters that are dissimilar to themselves, the attributed and behavior itself also seems to play a role. In this context, a certain way of perceived similarity to the character seems to encourage the wishful identification in other ways, mainly concerning behaviors that are perceived as positive or fulfilling (Hoffner & Buchanan, 2005). It can be argued that a higher degree of perceived similarity with the avatar has a potentially significant effect on the change of the players' attitude towards the character and, by extension the social group the avatar represents and therefore have a persuasive effect on the player (Van Looy et al., 2012).

Embodied presence refers to the emotion of having a mental bond with the game character (Van Looy et al., 2012). Certain perceived similarities between the avatar and the player, for example in design of the avatars appearance, combined with the introduction of a new perspective, specifically the dangerous situation of fleeing one's home country, could potentially have a persuasive effect on the player and result in an attitude change, making the game AAO a good fit to examine these potential effects.

Identification during the game may occur without the player being aware of it, as part of an automated process while the player is concentrated on the task to be fulfilled in the game (Sherry, 2004). This also means that it may be difficult to identify in an interview situation with the player since he or she is not aware of the process and may not be able to verbalize it afterwards (Klimmt, Hefner, Vorderer, Roth, & Blake, 2010). However, Klimmt et al. (2010) also propose a way that may make this information more accessible. The link between identification and enjoyment during the game may be relevant to whether the player experienced identification. It is assumed that high gaming performance occurs more likely when the player experiences a reduced self-discrepancy, which results in a higher level of enjoyment.



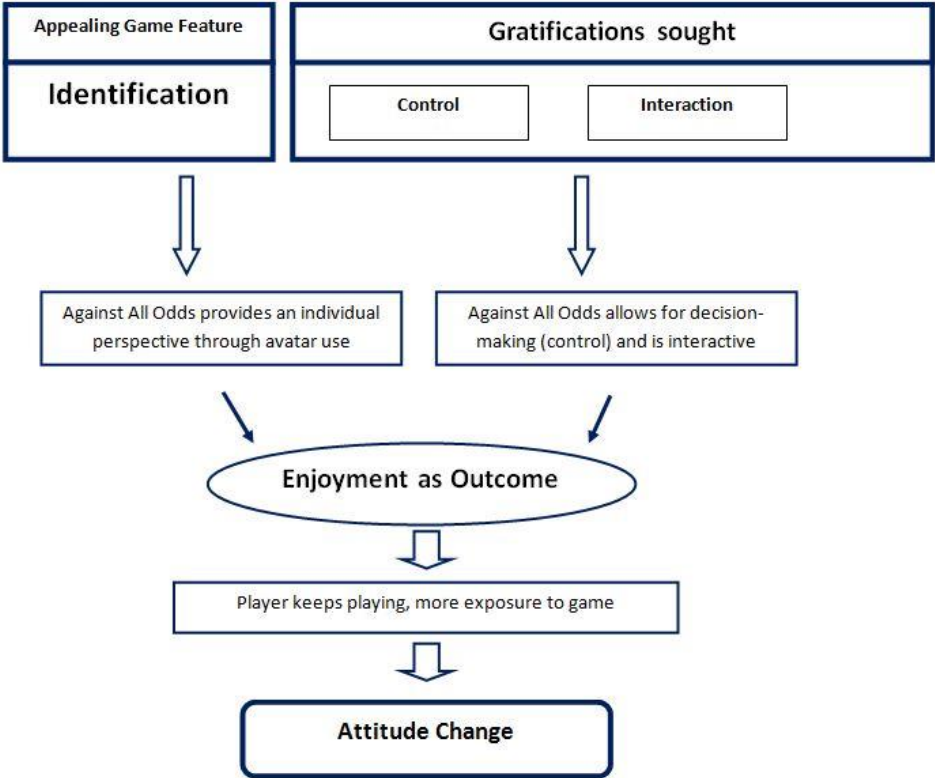
The concept of identification can be seen as the basis of the concept of role-taking, a concept that refers to the act of taking on another individual's view, intentions, actions or attitudes in a particular situation for a limited amount of time (Peng et al., 2010). In the context of persuasive games, role-taking and identification are suspected to contribute to the development of awareness and the willingness to help a certain social group or social issue that the game addresses as an outcome (Ahn, 2011). It can facilitate a positive change in attitude more easily than another media environment due to its interactive nature (Li, Liau, & Khoo, 2013; Peng et al., 2010).

It also needs to be noted that identification is an unstable process and not constant throughout the media experience. Consequences of game play that interrupt the experience, perhaps because a challenge is lost or a level unsuccessfully ended, can have influence on the identification process (Fox & Ahn, 2013). Whether this interruption impacts the outcome of enjoyment and even the persuasiveness of the game remains relatively unclear (Klimmt et al., 2010). Identification with the television characters may not be as strong as with the interactive game avatar, but therefore be uninterrupted throughout the experience which may result in similarly strong results. The documentary *Europe or Die* that was watched by the second group can also be expected to result in some kind of identification with the main characters, as a number of studies have suggested that identification with television characters is also very likely to occur (Hoffner & Buchanan, 2005). However, given the interactivity of a video game in contrast to the rather passive experience of watching television, it was expected that the video game AAO would result in a higher degree of identification, especially since the player is forced to make decisions as the avatar that will immediately have consequences for him for the rest of the game, while the documentary experience does not offer a similar kind of control and choice for the player.

## 2.4 Conceptual Model

A conceptual framework is presented to guide the study based on U&G and the concept of identification. The most relevant motivational factors are invoked in this conceptual model to highlight the contextual conditions that influence the player's decision to play video games.

The framework suggests that a game that satisfies these factors can achieve an attitude change for the player when the player is motivated to keep playing and can therefore experience the persuasiveness of the game.



## 2.5 The Persuasiveness of Video Games

Persuasive technology is a fast-growing field in both economy and research; motivating users, consumers or players and influencing their behavior or opinion through interactive elements (Fogg, 2003). As previous research studies are showing, serious game designers can and do make use of today's available interactive technology and the results in the field of persuasive games are promising.

Jacobs, Jansz, and Kneer (2014) are proposing a theoretical model of persuasiveness in serious games to contribute to a better understanding of the effectiveness of these games by incorporating perspectives from different fields of study.

Their interdisciplinary approach is focusing on the player's perspective and the playing experience in particular, drawing both from the areas of game studies and persuasive communication.

The player has the freedom to make positive and negative choices in the game which determine different outcomes. The rules of the game will result in a certain response depending on the choice; however, the choice itself has to be made by the player. The concept of choice is particularly relevant to the development of moral choices that result from the player's experience in the game (Ruggiero, 2013). AAO leaves the player with different options that potentially have an either positive or negative outcome, letting the player survive or be left in peace or face potential death and persecution. This confrontation with difficult choices could possibly lead to a better understanding of the situation displayed at large.

Empirical studies conducted are suggesting that persuasive gaming is an effective method to achieve attitude change about a political or social issue. Alhabash and Wise (2012) studied the persuasive game *PeaceMaker* that revolves around the Middle East Conflict and puts the player in the role of either the Palestinian President or the Israeli Prime Minister and lead them through multiple scenarios of conflict revolving around economic, military or social issues. The study focuses on the effects of role-play on attitude change which in the case the game *PeaceMaker* is achieved through self-persuasion.

The players who took on the role of the Palestinian President afterwards showed a higher level of sympathy for the Palestinian side of the conflict and a negative opinion towards the Israeli side. Players in the role of the Israeli Prime Minister, however, showed no relevant change of attitude towards either side of the conflict. Although the game was only played for 20 minutes by the participants the attitude they reported before and after the game changed drastically, particularly when the players were assigned the role of a character that contradicted their initial personal attitude. It seems at least the short term effect of the game that were established/found was meaningful although it remains unclear whether the impact will remain strong after a longer period of time.

Lavender (2008) studied the effects of the game *Homeless - It's not a game* and compared playing the video game or read a short story with similar content with a control group who was exposed to neither of the materials. The results of the surveys taken before and after the study were mixed with only part of the player group showing a higher level of empathy. Considering that the participants only played the game once, a further study with a longer engagement in the game might lead to more conclusive results.

De Grove et al. (2012) conducted a study among students comparing the effects of the awareness-raising game *Poverty is not a Game* (PING) in a school and a domestic setting, contributing with a study focusing on context. While the outcome showed only a small impact that can be linked to the context, it generally raises the question whether the setting of a game is important and if so, how it can be improved.

Neys and Jansz (2010) conducted research involving both game designers and players and study showed promising results concerning the impact of political internet games on opinion and knowledge of the participants. Further, the analysis of the players resulted in the suggestion that the player might create what can be called a "political self" which could eventually lead to real live consequences, namely the player's claim to be interested in additional information about the issue addressed in the game (individual facilitator) and the interest to bring it up in a social discussion (social facilitation). Their differentiation between individual and social facilitation is particularly interesting for the AAO study, for which social facilitation is a relevant outcome since interaction and dialogue with others is a promising way to lead to attitude change that may last beyond the immediate experience of the game.

Raessens' (2010) theoretical analysis of the games *Food Force* and *Against All Odds* was concerned with the framing of political issues in video games. Using the conceptual framework of George Lakoff, Raessens interpreted both games from a perspective that focuses on family values. This perspective is based on the assumption that people generally make sense of larger groups by using the family metaphor.

This metaphor can be extended to the United Nations, who launched the games as well and mainly consists of developing countries, the "children" that need to be nourished. The games can further enforce this picture of the UN being the nourishing parent, through the player who takes on that role in the game.

Raessens (2010) sees the success of a game like the ones mentioned not simply in providing information about a political situation, but the fact that the games employed metaphors and concepts that fit into the peoples frames, in this case the metaphor of family, which likely helped the players to gain a better understanding of complex global issues like crisis, hunger and poverty. It could be argued that using a familiar concept might indeed lead to a better understanding of complex situations that are hard to grasp for individuals with an average political interest and knowledge. Although we should also wonder whether the use of a metaphor does not oversimplify the issue and might ultimately result in a poorer understanding of the topic the game was trying to communicate. Whether the use of metaphors will be useful in other persuasive games as well is at this point unclear as research and case studies in this area and in persuasive gaming in general are still minimal, which is why further empirical studies in the field are required.

The theory chapter aims to help understand what makes games attractive and enjoyable for many people and serves as a basis for the empirical research that is following. The chapter did so by identifying the most relevant factors for people to play games that are potentially relevant for this specific study and by outlining the most relevant research that has been done in the field of persuasive games to date. The research design in the following chapter was guided by these findings.

### 3. Research Design and Methodology

The study's purpose is to compare the effects of a persuasive game with another medium, since the interactive nature of a video game, is regarded as more effective than a media product containing the same factual information but lacking interactivity (Kapp, Blair, & Mesch, 2012; Neys & Jansz, 2010). The research design is based on theoretical concepts as described in the former chapter to put the study in a context where the results from the practical part of the study can be analyzed based on theory that has proven to be fit for this purpose in previous research.

#### 3.1 Qualitative Approach

The present study focuses on a user-perspective and is therefore interested in the perception of individuals about a certain issue. A qualitative approach is used as it provides the necessary features to examine individual perceptions, opinions and attitudes, giving the respondents the possibility to answer the interview questions in their own words and terms without the restrictions of a quantitative approach with limited answer possibilities (Qu & Dumay, 2011). Qualitative research is mainly distinguished from quantitative research in that its main purpose is not strict measurement but the description and understanding of complex issues from a personal perspective (Arksey & Knight, 1999). The exploration and description of an individual's understanding of a certain issue or phenomenon can be examined in depth only with a qualitative approach, and even though critiques state that the results of qualitative research may in some cases be speculative, it is still an appropriate approach to identify relevant influences and explain social phenomena to a certain extent (Ritchie & Lewis, 2003). Qualitative research does not claim to produce objective results, but rather intends to explore perceptions, attitudes, emotions and understanding from an individual standpoint (Arksey & Knight, 1999). However, that does not mean the results cannot be placed into a larger context. A careful and well planned analysis of the collected data will identify themes and patterns that can contribute to a better understanding of a certain phenomenon and its place in society from a larger perspective beyond the particular group that was interviewed (Kvale, 2007b).

Initially, two pilot interviews were conducted for group GAME and one pilot interview for group DOC to test the interview questions and make necessary adjustments to ensure the questions were suitable to gain relevant data. As a result from these pilot interviews, several questions were added which are more specific to the game and the documentary regarding content and specific scenes to encourage the participants to talk about their perception in more detail, resulting in richer data from the following interviews.

The study consisted of three steps in which the participants were involved. First, a questionnaire was used to gain an overview in terms of age, gender and education as well as gaming behavior and migration attitude. These variables were chosen for several reasons. First, it had to be expected that casual gamers and participants with no gaming experience would perceive the game differently which potentially influences how they enjoy the game and how it affects their attitude towards the issue addressed in the game. Second, information about the participants' attitude prior to playing the game provides further insights in potential change when the data can be compared to the interview data collected after playing the game. Lastly, the demographic information serves to identify potential differences in how the participants perceive the game. Research has suggested that men often prefer other games than women (Hartmann & Klimmt, 2006) as well as younger gamers prefer other game genres than older gamers (Greenberg, Sherry, Lachlan, Lucas, & Holmstrom, 2010). Despite the small number of participants in this study, this information was expected to give further insights useful for the data analysis. Information regarding the participants' education was also collected to potentially identify differences in relation to education level. However, all recruited participants turned out to have a similar education level so a comparison was not done.

The questionnaire data were then used to divide the participants into two similar groups (DOC and GAME). Next, the participants were invited to either play the persuasive game *Against All Odds* (UNHCR, 2005) or to watch the documentary *Europe or Die* (VICE, 2015). Third, individual semi-structured interview was held during which the participant's perception of the game and opinion about the issue was discussed. Finally, the questionnaire and the interview data were analyzed with the constant comparative method (Boeije, 2002) to identify relevant patterns to answer the research question.

### 3.1.1 Semi-open Questionnaires

Before being assigned to either group GAME or group DOC, the participants were asked a series of questions to examine their attitude towards refugees and migration and their gaming behavior prior to the game and the documentary (see Appendix A). Since the questions are semi-open and allow for individual responses and some flexibility, the questionnaire used for this purpose can be considered qualitative (Ritchie & Lewis, 2003).

The short questionnaire at the beginning of the study also functioned as an ice-breaker to give the respondents the possibility to ease into the topic and not be too overwhelmed by the complexity of the research area (Adamson, Goberman-Hill, Woolhead, & Donovan, 2004). Several participants also responded during the interviews that the questionnaire made them more curious about the study itself and contributed to their interest in the topic, which may have contributed to a more productive interview session.

### 3.1.2 Individual semi-structured Interviews

Within qualitative research, interviews are the most widely used method to collect data (DiCicco-Bloom & Crabtree, 2006). In individual interviews, the participants are encouraged to talk about their own experience during the game and about how the aspects focused on in the theory chapter relevant to them while being engaged in the experience of watching the documentary or playing the game and what particular parts of the respective medium seemed most relevant to them personally (Sherry et al., 2006).

Given the user-perspective this research is focusing on, semi-structured interviews were an appropriate approach to measure feelings, perceptions and values of the respondents, for which detailed information is needed that a quantitative approach could not deliver (Cronin, 2008). Interviews provide the researcher with detailed information about the individual and their personal perception about a certain topic or issue. Especially when talking about complex or sensitive issues, individual interviews often provide a more comfortable atmosphere for the respondent in which they can speak openly, as opposed to focus groups, another popular method in qualitative research that is however lacking the level of detailed personal information and therefore less fit for this study (Ritchie & Lewis, 2003).



While interviews can take on different forms, the key element is the focus on the individual. Interviews are an especially good fit for research that investigates phenomena or issues that are complex or sensitive in nature in that they provide the possibility of clarification and detailed understanding of an individual's perception (Ritchie & Lewis, 2003), which makes this method a better fit than focus groups where respondents build off on the experiences and opinions of the other group members (Luna-Reyes & Andersen, 2003). It is also possible that a controversial issue like migration can easily spark group discussions that will take the conversation too far from the core topic, the role of the medium, and therefore result in less relevant material and individual interviews where it is easier to keep the conversation in line with the topic. Further, the data derived from focus groups is largely the result of group interaction (Rabiee, 2004). However, the aim of this research is to examine the perception of individuals for which individual interviews are more suitable. In addition, since the vast majority of the participants were not native English speakers and have different levels of proficiency, some may have been reluctant to engage in a group discussion that is being held in a foreign language. An individual interview provides a more comfortable setting in which the participant has the opportunity to explain himself in detail without the consciousness of a whole group listening, which may lead to more in-depth and personal answers. Several participants seemed to have appreciated this private setting when they occasionally needed an extra moment to find the right words or explain themselves, particularly regarding a difficult subject like personal perceptions about refugees or migration laws, which further confirms the right choice of individual interviews for this study. The semi-structured interviews consisted of a number of open-ended questions that were prepared by the researcher in advance, with the research question in mind that needed to be answered (see Appendices B and C). In addition, other questions emerged from the conversation that add information to the data set and contributed to a better understanding of the individual's perception about the issue in question (DiCicco-Bloom & Crabtree, 2006). The most obvious advantage on individual interviews is the richness of data the researcher can collect, given that in a face-to-face situation, additional questions can be asked to clarify matters or gain additional information from the respondent that would not be possible in a quantitative approach, for example surveys where the questions are closed and cannot easily be adjusted according to where the interview is going (DiCicco-Bloom & Crabtree, 2006).

The conduction of interviews is generally supposed to last until no new categories and themes emerge in the data analysis (Arksey & Knight, 1999). However, given the nature of this research, the limited time available during a Master thesis, the number of interviews was limited and may not have reached full saturation. Yet, with a number of 16 interviews in total, several patterns and themes emerged and were helpful to answer the research question.

## 3.2 Operationalization

### 3.2.1 Units of Analysis

16 participants were recruited through online and offline advertising in various locations. Most participants were recruited through the Facebook groups *Young Expats Netherlands*, *Expats in Rotterdam* and *Commodity Market Rotterdam*. Two participants were recruited by print advertising in local supermarkets. An incentive for participation in the form of a lottery for iTunes or Bol.nl vouchers was used to recruit participants more easily. A snowball system did not turn out to be effective, but a sufficient number of participants were recruited nonetheless. A majority of the participants were students or recent graduates who had been living in the Netherlands for multiple years with a nationality other than Dutch. Male and females were equally represented, as were casual gamers and non-gamers.

The interest in migration issues and the personal opinion of the participants was divided, with most people reporting moderate interest and fairly little knowledge prior to the study. One participant formed an exception as she reported to be a refugee herself, which was unknown by the time of being recruited, nor did the respondent know what the study was going to be about. The age of the participants ranged from 19 to 47 with the majority being in their mid-20s. All participants are currently enrolled in or have completed a university program. The names used in this paper have been changed to protect the privacy of the participants (see Appendix D).

### 3.2.2 Questionnaires and Group Selection

The questionnaire was sent to the respondents' by email after they agreed to participate in the study and after they were informed about the general topic of the research. All participants sent the questionnaire back, some after an additional reminder, and the answers were examined to divide the participants in two balanced groups.

The 16 participants were then assigned to either group GAME, who played the game *Against All Odds*, or group DOC, who watched part 1 of the documentary *Europe or Die* containing similar information as provided in the game. The part was chosen because firstly, it matches the time it takes to finish the video game (approx. 30 minutes) and therefore provides similar exposure time to either medium for all participants. Secondly, part 1 contains the most relevant information that is most similar to the video game content. The time needed to play the game depends on the player, but experience from playing sessions from the researcher herself as well as several informal sessions among friends and two pilot interviews have shown that it can usually be finished within 30 minutes or less. The participants were sent the link to the game and the documentary respectively and were told to watch/play before meeting for the interview. A reminder in form of a short email or Facebook message the day before the meeting was sent out to ensure the participants would come prepared and remember the meeting.

### 3.2.3 Interviews

Individual interviews with the participants were conducted after the gaming session and the documentary session respectively to explore individual answers and opinions in depth. The participants were interviewed to examine if the game had an effect on their attitude towards refugees and migration. The interview sessions were opened a short outline to inform the participant about what it going to happen and which issues will be covered. The first question was a broad and open one, making it easy for the participant to answer (DiCicco-Bloom & Crabtree, 2006). The first question in this study was as general as "How did you like the game/documentary" and all participants responded without visibly feeling uncomfortable or insecure.

Then followed a general question about the player's opinion of the game and continue more specifically what was perceived as positive or negative during the game, guided by the topics covered by U&G as identified as relevant in the theory chapter. Additionally, the participants will be asked about their attitude towards refugees and migration in relation to the game play or documentary to determine a possible change through exposure to the medium.

The interviews were taped and the researcher took notes in addition when necessary. By taping the interview, the researcher was able to give full attention to the respondent without the thought of losing or missing important information. The tape also captures hesitations and or different tones in voice that could otherwise be lost without an audio record of the interview. Audio recording as opposed to videotaping is also generally perceived as less invasive and less intimidating for the respondents, creating a more comfortable interview environment (Ritchie & Lewis, 2003). None of the respondents was visibly uncomfortable because of the recording device on the table.

The tapes were transcribed to code and analyze the content in detail. In addition, by transcribing the interviews, the researcher can learn a lot about their own interview style and be able to make adjustments for future interviews (Kvale, 2007a). Since the researcher had little interview experience prior to the study, being closer to the data by transcribing it also helped to adjust details in future interviews.

A transcript of an interview is always also an interpretation, leaving it to the researcher to make judgments about the level of detail, including speech pauses and their estimated time, hmm, aahs and oohs or nonverbal communication during the interview (Arksey & Knight, 1999). In case of doubt during the analysis, the recorded interview could therefore also serve as a source to go back to in case of doubt, making the analysis easier for the researcher.

The focus of this study lies in the perception of the participants and the transcripts were focused on the content of what is being said rather than a full verbatim transcription, which in this case was not viewed as necessary or relevant for the data analysis. The transcripts therefore do not include filling words, which gave the researcher the possibility to gather more additional data in the time that was saved on transcribing and focus on the content.

### 3.2.4 Data Analysis

The data analysis is strongly dependent on the research design of the study (Arksey & Knight, 1999). The transcribed data from this study was subsumed to a qualitative analysis using the Constant Comparative Method in order to systematically make sense of the respondents' answers individually and in comparison to the each other to identify common themes and eventually lead to pattern that can to some extend be generalized (Boeije, 2002; Harding, 2013). In the case of this study, the themes to be identified are the perceptions and motivations of the respondents towards the game and how it potentially influences their attitude about migration and result in several categorizations to identify them.

This approach aims to make the analysis clearer since this part of a study, as Boeije (2002) also argues, is often left vague in comparison to other sections of the research but can contribute to its credibility when addressed properly. A text always contains a variety of meanings (Arksey & Knight, 1999), so to be able to make sense of a text it is necessary to analyze it carefully. The present method was seen fit as the study focuses on the perceptions and opinions of individuals about the same topic, which calls for a comparison to identify common themes about a certain issue (Harding, 2013).

Primarily, the first interview was coded within itself to identify what the respondent said about the issues that were discussed and get an overview of the data. Then, these fragments were coded to find themes within the same interview and whether these themes were repeated. The fragments were then further examined to identify patterns within the same text. The same procedure was repeated with the following interview and then compared to the first interview. Through this process, the individual interviews were analyzed to find mutual concepts, themes and patterns to understand the studied phenomenon in a broader perspective, beyond the interviews that were conducted (Boeije, 2002).

## 4. Results

The main purpose of this study was to examine how a persuasive game like *Against All Odds* influences the player's attitude towards refugees and migration, specifically in comparison to a documentary of the same topic, in this case the VICE documentary *Europe or Die*.

Based on a conceptual model, the main themes emerging from the data are examined in this chapter and put in relation to each other to identify what made the game or the documentary enjoyable for the participants and how that process may have influenced their attitude towards the issue. The themes that were identified during the data analysis are presented in this chapter for both the group GAME and the control group DOC, each group consisting of 8 semi-structured interviews conducted in April and May 2015.

The data derived from the interviews are the key source for this research, quotes will therefore be presented to illustrate and support the results that are drawn from the interview data. In several cases, a different pattern surfaced between participants who play computer games on a regular basis and those who do not. Lisa was the only participant who reported being familiar with the category of serious games, while most of the other participants were surprised about the very existence of this game category.

A comparison of the two groups is presented in the end of this chapter. The results will be explored in more detail in the following chapter Conclusion and Discussion.

The constant comparative method was used to analyze the interview data of this study (Boeije, 2002). The following themes were identified as key themes relevant to answer the research question. The themes emerged from each group are the following.

| Group GAME     | Group DOC             |
|----------------|-----------------------|
| Challenge      |                       |
| Immersion      |                       |
| Identification |                       |
| Control        |                       |
| Information    | Information           |
| Emotion        | Emotion               |
|                | Realism & Credibility |

While there were similarities between the two groups, different themes emerged during the data analysis due to the nature of the two media game and documentary. However, in addition to some differences in the participants' perception of the medium, several similarities could also be identified and are laid out at the end of the chapter. Several of the emerged themes were not explicitly discussed in the theory chapter mainly due to space limitations. However, all themes presented in this chapter are relevant to the study and will therefore be analyzed.

## 4.1 Against All Odds

### 4.1.1 Challenge

Past research has identified challenge as one of the most relevant factors in game research. When the difficulty of the tasks in a game matches the player's skills and abilities to solve them, the player is often motivated to keep playing (Egenfeldt-Nielsen et al., 2008). Given the nature of the game AAO, the tasks to be solved were not expected to be particularly challenging regarding skills and gaming experience, so challenge was not identified as a main gratification that would make the game appealing to its players; an assumption that was largely met during the data analysis. Challenge was indeed identified as important to the majority of participants of this study, although the perception of how challenging the game itself was varied greatly among the players, half of which compared the game to other, in their view more challenging game types, mainly First Person Shooter Games (FPSG) or 3D role-play games with tasks requiring advanced skills. Ando made a comparison to another popular game that in his perception may be more challenging.

"It's not Candy Crush but it really does give you an interest on the subject." (Ando)

The story of the game was described as interesting by more than half of the respondents. However, especially those with a considerable amount of gaming experience pointed out that, while the story stirred some emotions and general interest in the topic, the game design itself was lacking what makes games worth playing for them; mainly more difficult challenges.

"As a gamer, I can tell you just a story maybe is not only the thing that I would consider as something important to play a game. It was a good story" (Diego)

"Not really, not really challenging." (Fara)

Most tasks of the game were lacking challenging elements for a large number of respondents. Two players, Diego and Ando, mentioned the part where they had to flee their home town and hide from the authorities as challenging. Diego specifically pointed out that the challenge was due to - in his eyes- failed game design, which made the navigation of the character with the keyboard difficult, but at the same time resulted in a small challenge.

"That was a very tricky part, but at the same time, I think it was the most enjoyable part of the game. Maybe because I had this feeling that I couldn't pass it, then after trying and then I achieved this level, I think this was the most exciting part" (Diego)

"Apart from the other that was the difficult part. The controls are hard. At that point it did give you the anxiousness like when you watch a horror movie and you feel he's right behind, this kind of thing." (Ando)

Others described the experience as frustrating and annoying and three players did not finishing this particular task. Sharima, Fara and Francisco all skipped the task and moved on to the next section of the game after multiple unsuccessful trials.

"Eventually I was like try three four times. I was like yeah, I'm not feeling it." (Francisco)

Lisa perceived this particular task as contributing to a better understanding of people fleeing from their home countries and their various reasons to do so.

"It really sucks to be them." (Lisa)

Specifically because the game also confronted the players with the situation of the refugee before they arrive in a Western country in the first level. For Lisa among several other players that was a relevant feature of the game that contributed to a better understanding of all the steps involved that a refugee is going through until they become visible in their own society.



A second difficult task was reported as signing the statements to give up personal rights in level one, although not regarding gaming skills as in the task described above. Signing the statements was perceived as difficult by several players because the statements were not congruent with the player's own opinions and therefore described as difficult to sign. Half the players reported that they acted in conflict with their personal values and beliefs, which made the task difficult for them.

More than half of the participants, among them Tony and Fara, compared the scene with the historical background of their own country:

"[I'm] from Poland. In the Communist times, many people were also forced to sign things, and there were also many, many problems regarding the human rights, civil rights, at the time." (Tony)

"Yeah, I can [relate] because of those things that I know about those people in my country [Iran] that they were in prison because of those things that they believe in. I can relate because I know the story. It never happened to me but I was following the news and stories about these things a few years ago in my country. It was happening. Yeah, I could feel it." (Fara)

Tony did however say this background did not influence his decisions in the game, as he does not generally spend a lot of time thinking about this time and no personal memory of it. The game did however bring up the connection between the refugee situation as a reason for fleeing the country and similar human rights issues in other times and countries. It could be argued that the game encouraged him to reflect on the situation in this way. He also illustrated that to him, the refugee issue addressed in the game is different and more complex in many ways and he is not intending to compare the two cases.

"First of all, of course, it is a different kind of problem. It's more complicated, more complex. There are so many levels, taking people from not only out of their country, but also from totally different cultural, historic, our background, so more complicated in many dimensions." (Tony)

For Sharima the task resulted in understanding the situation of those who are exposed to these procedures in real life.

"I could really imagine to be in that situation and understand, okay like these things, these rights or these questions, this is really something that they deal with (...), I could really imagine it happening." (Sharima)

Ando also made a connection between the history of his own country and the situation of the characters portrayed in the game, which for him contributed to a better understanding and identification.

"The thing is I grew up in Greece with the war right next to us so pretty much anyone there has met people, especially from Yugoslavia or from the Kosovo war or Albania in the early '90s when communists fell, communism fell." (Ando)

Another part that was described as challenging and difficult was the distinction between US produced goods and foreign produced goods in level three. Similar to the fleeing part, two players did not finish the level due to lack of knowledge where to put the goods and eventually lost interest in trying, while some others used the web facts to solve the task.

"Then eventually I got confused. Which was it again? This one? This one? This one? So eventually I was like no and also didn't complete that one." (Francisco)

"The third part was not so great (...).There was no value added, I would say." (Tony)

It can be concluded at this point that challenge was generally described as lacking in the game AAO and that the majority of the participants perceived the level of difficulty as low or too low, which was also illustrated multiple times by describing the game as more suitable for a younger audience by both gamers and non-gamers.

#### 4.1.2 Immersion

Scholars have argued that flow and immersion overlap in many aspects and that immersion is further a precondition of flow (Jennett et al., 2008). While flow is described as an extreme and optimal outcome as addressed in the theory chapter, immersion and also engagement have been described as less extreme states of that experience. The themes and patterns emerging from the data suggest that while some players experienced immersion and described the game as immersive or engaging an optimal state of flow was not identified, therefore the theme immersion was chosen under this section to describe this experience. If a state of immersion was reached temporarily, most players reported it happening in the first level. Half of the players explained this with the atmosphere the graphics created for them, something that was lacking in the following levels.

(...) It comes suddenly, boom! The army gets on top of you. That's bleak. I think they got the atmosphere right. I think that was the strongest part of the game actually. The atmosphere was dark and it was scary in a psychological kind of way. It's like the Exorcist, you don't believe in ghosts and exorcisms but the whole atmosphere it gives you the creeps. It was good. You can sympathize with people because they went through that. You know you can go through that but you have the option of visualizing it in a way" (Ando, visibly impressed)

Ando and Diego also referred to role-playing games and 3D games in particular when asked what was missing in the AAO game, Sharima referred to Playstation as a more engaging way of gaming. The importance of the story that is being told in the game was also highlighted repeatedly, with all respondents stating that the story itself was good, interesting or immersive to some extent. The lack of immersive elements influenced enjoyment of several players and their motivation to keep playing, mainly but not exclusively those participants who reported to be play video games in their free time, specifically Tony and Diego.

"...but I promised you I would finish it so I did." (Tony)

Three of the participants, however, described their experience as generally immersive which motivated them to keep playing:

"I was like yeah, I need to do this. I can't give up." (Lisa)

"I think it was immersive. The graphics with kind of dark feel they put in the mood so you could empathize when you were running from the army." (Ando)

Lisa, Diego and Tony are regular gamers and generally prefer role-playing games, often with 3D graphics, so they are used to realistic game environments and challenging tasks. Lisa reported an interest in point-and-click games beforehand, which may explain why she found AAO also more enjoyable. Diego personally prefers FPSG and those enjoyable features were lacking for him in AAO.

"To be honest, if I would want to play a game that can give me the situation that I'm running out of the country or someone is trying to shoot me, I would play Black Ops or First Person Shooter or something where I have to run. This game doesn't have those factors compared to games from Playstation or Xbox. It's just a very casual game. It doesn't give me the feeling that I'm going to feel being chased by a dog or someone that has a gun. At least this is what I think." (Diego)

Participants who did not play computer games on a regular basis reported less often that this aspect was an issue to them. The fast introduction into the scenario resulted in challenge and immersion for some players, keeping their attention from the early stage of the game.

"It was engaging, that's good. I was actually concentrated and thinking about what am I going to do, so yeah (...), you want to survive because you get into the episode of the game very fast. After the questioning, you're kind of literally smacked into the game. It engages you after this part a lot and therefore you're challenged." (Tim)

One player reported a lack of realism on the story that was being told. The story seemed too simple to represent real life events. This resulted in a lack of presence while playing, since the game situation did not engage him enough.

"In real life, that would be kind of complicated. Like, "Oh, well it's closed but we can see if we stay here a little bit we can open and we can get in." I don't know. Sounds not that possible, at least not realistic." (Diego)

Others perceived the graphics and design as part of the story, which for them added realism to the experience, in the case of this study, mainly for respondents who did not report to play a lot of video games, specifically 3D games or shooter games, as were mentioned in this context. The images and graphics were reported as realistic, supposedly adding to a more realistic game play for some players. Game design was repeatedly discussed as a relevant factor in how realistic the game is perceived, both by gamers and non-gamers.

"The graphics didn't really show you where you could possibly go, but I think that was also part of the game because it's supposed to make you feel desperate and wherever you go could be your death. The emotions of the people were very well perfected. Like when you cross the border and you're supposed to search for shelter, then I was actually able to decide, okay let's not go to these people, they look mean." (Tim)

For the respondents Diego, Ando and Sharima, AAO was not perceived as a real game in comparison to regular entertainment games. It did not come across as a video game in a traditional sense and was described as a tutorial, questionnaire or a visual novel instead, although not generally in a negative way. The often text-based design of the game was in this context mentioned repeatedly.

"It was like a visual novel, which is fine enough for me. It's better than just reading it."  
(Ando)

"I think it's not like so interactive. This could be just like a tutorial or something that I could read for myself, but not a game (...) I feel like just reading screen after screen, not that much of a game." (Diego)

Whether the game was perceived as immersive or engaging seemed at least to some extent be depending on the participants' prior gaming experience. Participants reporting a less immersive experience compared AAO with other games they prefer which provide them with a more engaging experience mainly due to a different game design: AAO's point-and-click design in contrast to FPSG or generally games with advanced graphics and complex tasks to solve. This further illustrated the importance of defining a target group for the game in question, particularly regarding game design while the story itself was generally perceived in a positive way.

### 4.1.3 Identification

Identification and immersion were perceived as closely related during game play for the majority of the participants. The game play seems to be perceived as more engaging when the player was able to connect to the avatar in some way, which appears to be an important factor more enjoyment to occur.

"You can put yourself in their shoes." (Francisco)

"Yeah, I honestly like the personal perspective that's present in the game." (Tony)

Many players did not know they had the option to choose their own avatar, even when they were specifically told to by the researcher before playing the game. This resulted in many players playing with the default female avatar. Those who did choose their avatar reported they chose one that resembles themselves closely, mainly in gender and hair color.

"Yeah, somehow when you are choosing the avatar you choose it a bit close to you, how you look and how you feel because that can be you." (Fara)

One player formed an exception when he specifically chose an avatar different to himself, a girl. He explained his decision with the wish to assume a different identity in the game.

"I deliberately chose something, somebody that totally wasn't me (...) trying to give myself a different identity." (Tony)

Depending on needs or motivations, users might choose an avatar that resembles an ideal or potential feature of himself (Fox & Ahn, 2013). Tony reasoned that a female refugee faces different struggles on top of just being a refugee, so he was interested in getting to know what these differences are.

"If you were a girl, for example, if I was a girl, I was, admittedly, you know, trying to put myself in a position of not only immigrant but also a female immigrant, which is quite, I think, quite a different case, for example." (Tony)

Almost all of the respondents were of a nationality other than Dutch and more than half reported a resemblance of the game situation to their own biography or the history of their home country. Those who had own experience in living in a foreign country in general described their game experience as more relatable because they were somewhat familiar with the struggles of having to leave their home country, albeit under much different circumstances than a refugee.

"I like the part when ... where the girl was looking for a job as well, mainly because I am a foreigner." (Ando)

Sharima reported that being refugee herself she found great similarities between the scenes in the game and the stories she had been told from family members while fleeing her home country Afghanistan, which to her made the story realistic and the game reportedly more enjoyable.

"I chose the way of the truck because that's actually how we fled..." (Sharima)

Other respondents also described the game experience as relatable and realistic due to their personal experience. The statements of Francisco and Ando illustrate how present that connection is for many of the participants.

"Because I'm also an immigrant ... yeah, I'm here for like seven years so you can relate to immigrants because most of the time you also deal with some situations like that, maybe not to that extreme but you can relate to that." (Francisco)

"The thing is I grew up in Greece with the war right next to us." (Ando)

Identification with the game character was addressed in various ways by the respondents. Lisa pointed out the game is rather short and does not offer the establishment of a deeper connection between the player and the game character or the other characters involved in the story, like neighbors, friends and family. She did however explain how she reacted to this limitation:

"You switch out their family with yours, so that how you still get like... You still imagine your feelings you have towards your parents to be their feelings towards their parents, or sisters, or brothers." (Lisa)

Four players referred to the game character as themselves in the first person when they described an in-game situation, in particular when something was happening to the avatar.

"I started with the normal houses, because they didn't feel as scary." (Lisa)

"Of course I didn't want to get killed..." (Tim)

Tim reported how he switched positions while in the game.

"I made the decision as myself at the start, and then I pretty fast noticed that I can't do this. I was getting smacked a lot at the start because I didn't want to give up my rights. I had to go along with it and thus I continued by imagining, okay, try to be the person in the game."  
(Tim)

The second half of the players switched between first and third person during the interview, but mainly referred to themselves as the player rather than the avatar when describing decisions they made and referred to the avatar when describing consequences for the character. It needs to be noted in this context that identification is an unstable process and not constant throughout the media experience. Consequences of game play that interrupt the experience, perhaps because a challenge is lost or a level unsuccessfully ended, can have influence on the identification process (Fox & Ahn, 2013).

Ando referred to the game character in 3<sup>rd</sup> person when explaining the characters' situation, but switched to 1<sup>st</sup> person perspective in other parts.

"Of course she was from one of the war zones and they didn't have references." (Ando)

"I told them everything they wanted to hear. It was, Yes. Yes. Yes. Don't kill me." (Ando)

Like several other players, Ando assumed his own perspective when he talked about choices he had to make in the game, referring to himself as the player rather than the avatar (in third person). However, in situations where the avatar was perceived as more present, he switched. The avatar is mostly only visible in the game after a task is finished and an explanation or summary appears on the screen along with it. The way the players refer to the gaming experience may indicate which role the avatar plays for them in the game.



Ando's statements above illustrate how some players were more likely to refer to themselves when the avatar was not visible but switch to a 3<sup>rd</sup> person when talking about an experience where the avatar appeared on screen. Similar phenomena surfaced in half of the interviews regarding the perspective from which the player describes an experience. Some described the gaming experience from a first person perspective, referring to the avatar as themselves, while others used a third person perspective and talked about the avatar as a different person. A difference between male and female players or gamers and non-gamers was not noticeable in this aspect.

#### 4.1.4 Control

The possibility of control in a game enhances interactivity for the player (Bostan, 2009). The decision-making as a form of choice was the most prominent feature of the game, with different types of decisions that the player was confronted with throughout all three levels. The first two levels mainly confronted the player with choices that needed to be made on a personal level, for example judging the danger of a situation to survive or choices that determined the fate of other game characters. The third level mainly involved decisions that could be solved with factual knowledge. Decision-making was identified by all respondents as a main game component.

While half the respondents perceived the decision-making in the game as in general positive, challenging or emotionally difficult and perceived it as enjoyable, the other half described it as predictable and too simple, which also resulted in less enjoyment.

The decision-making was described as a feature that distinguishes the game from another medium, in this case a book where the storyline is not influenced by the reader and therefore the reader is not confronted with the consequences of his own decisions. Lisa illustrated this distinction with an example from the Harry Potter book series.

"Oh well, spoiler alert, like Dumbledore dies if you didn't know. That's like really tough as well, but that's different because you don't have to think about your own choices." (Lisa)

All of the respondents reported that they chose to leave their neighbors behind on the escape route instead of family or friends as they also would in real life, sometimes explaining how they do not know their own neighbors very well. This articulates how the players made in-game decisions often based on personal preference, potentially indicating a state of engagement in the game. The majority stated that the decision was difficult and resulted in some reflection of the situation and their own choices.

"Then I chose the neighbors, because I don't know my neighbors that well." (Lisa)

"I actually had to sit there and think about it. "Will I leave my neighbor there?" (Ando)

Unlike the parts of the game where factual knowledge was required (US vs. foreign goods) or where the player needed to employ navigation skills (fleeing the town) the tasks where decisions needed to be made were completed successfully by all players, even when multiple tries were necessary as was often the case when signing the statements in level one. Several players described the decision-making as difficult, for Tony it was a very realistic experience.

"Especially the first one, I would say, was very realistic. I liked the moments of tough decisions. For example: would you rather take the risk or let your friend go at the border, for example. It was very realistic, I think; the same with trusting other people, whether you trust strangers or not in such situations. I think the first one was highly realistic." (Tony)

The other parts did not have the same effect on Tony, which he explained with the fact that they were less graspable for him and more difficult to imagine since he did not experience a similar situation in his personal life. It is likely that the first level was different to him since he already mentioned the connection to the history of his own country and was more familiar with the scenario, which made it easier for him to experience the situation in a more realistic way, much like Ando who also expressed a personal connection due to his own country's history.

On the other hand, Lisa, who reported to have been brought up in the Netherlands feeling very protected and sheltered has also described how she perceived the decision-making realistic and that it caused her to reflect on her own situation. This may demonstrate that personal experience is not necessary to perceive the decision-making as realistic and can still result in a personal reflection and understanding for the character's situation.

"I'm at university, my parents have normal income. I live in a nice house. I'm an only child. I get whatever I want. I'm so freaking privileged. Everything in my life is going well, so I can't really identify because I don't feel like I have ever experienced anything like that, and I don't think I could ever, or I am allowed to identify with that, because I can't even compare the two lives. My whole life I've been protected by my parents, and that's like the best life ever."  
(Lisa)

Choosing an escape route out of the country was a decision that three respondents based on real-life events they had heard about in the media, like Francisco who decided not to take the boat because of the incidents with refugee boats that have been in the news in recent months. This illustrates how several players form a connection between the game scenario and real life events, thereby contributing to a more realistic gaming experience.

"How are you going to go into a boat with seeing the incidence that have happened the last couple of months. (...) It sticks in your mind a bit when you see those things." (Francisco)

Having control over where the game and its storyline is going was a feature that several participants described as enjoyable although it was also expressed that the consequences of the decisions were predictable and too simple, which was perceived with a lack of surprise, especially for casual gamers. However, having control over the storyline in that aspect also resulted in several participants reflecting on their decisions and potential consequences in real life. It can therefore be assumed that control, mainly in the form of decision-making contributed to a more engaging experience in comparison to group DOC and also potentially influenced the players' attitude.

#### 4.1.5 Information

Information was provided in various ways throughout the game. While the information displayed in game mode mostly focused on personal insights of the refugee situation, e.g. consequences of decisions for the character; factual information was also provided through *webfacts* links the player could follow in each level. The webfacts offered general information about forced migration worldwide as well as videos and testimonies of refugees whose situation resemble the game environment.

Most of the respondents pointed out that the game helped to refresh information about the issue, while half of all players reported to have gained new information in certain areas. Several of them were able to describe in detail how some aspects of refugee life were new to them and how that new information resulted in emotions like shock or sadness, but also helplessness towards the situation at large.

"I also saw the thing that you had to find a place to sleep. I was like, right because you don't have a home. You don't have family. You don't have friends. There's no one who allows you in, because you're not legal yet. It was horrible. That really emphasized things." (Lisa)

For many players the main purpose of the game was providing information rather than enjoyment.

"Yeah, it was more for information and not like for enjoyment." (Francisco)

"There were a lot of things that I didn't know about because I'm not refugee. I didn't know about those hard things that was in the first section that was about having trouble with the country and how hard it is to escape or if you are interrogated then you have to say something which you don't maybe believe in it just because not to be imprisoned. That was something ... It was interesting for me because I didn't really think about it." (Fara)

The majority of the players did use the possibility to click on the webfacts when they were stuck in a level and followed the link to be able to finish the task and only once with the intention to seek out information that was not needed to solve the task.

"When I put the facts ... yeah, because just wanted to know some additional information."  
(Tony)

Providing the players with new information or even old information presented in a new way resulted in an interest in the topic for many players. This was illustrated when many participants recalled and elaborated on that information during the interview. However, for many players the strong information feature was also described as a contrast to what they perceive as a game in general, likely indicating a distinction between providing information (learning) and playing a game (enjoyment). Many participants described the game as generally enjoying nonetheless, which also illustrates that players can differ between learning and enjoying while still being able to experience both in the same game.

#### 4.1.6 Emotion

Emotions often play a significant role in gaming and game enjoyment as previous studies have suggested (Jansz, 2005; Przybylski, Weinstein, Murayama, Lynch, & Ryan, 2012). Emotion as an experience during game play was addressed by multiple players and was therefore identified as a relevant theme.

In general, the game experience was described as emotional more often than challenging. Most of the players described the story and the game play as somewhat emotional for them, mainly regarding decisions that involved others around the game character, like the fate of friends and family throughout the journey. The experience of different emotions resulted in different perceptions of the game for various players. For few respondents the emotions stirred by the game play were leading to a more realistic gaming experience.

"Oh, well this is just a game but, it makes you think about what it's really like, and if it's really like that. It's shocking. It was shocking." (Lisa)

One player described it as a factor that would not make them want to play the game again since the emotions were generally negative ones, such as sadness and helplessness. This contradicted for some players with what would make them want to play and therefore resulted in less interest to play the game or a similar one in the future.

"Yeah, the topic of the game is okay but you can find more interesting things because this one maybe doesn't make you happy." (Fara)

Lisa talked about making decisions that would be difficult to make for her in real life. Her statement illustrated how emotional involvement played a role for her during the game.

"For me it was just like I've played some other games, and it was just like I would just think like, "Okay, this is just a game, and I just have to click a button, and nothing is going to happen." Then it's not like I'm actually leaving a friend behind, or I'm actually leaving my neighbors behind, or whatever. It's just whatever I do it doesn't have consequences. That's what my feelings shutting off was about I think." (Lisa)

Emotions resulted mainly due to two features. First, the general display of the game character's difficult situation and second, because of the players' involvement by making decisions for the character. This further illustrated how the story and the interactive nature of a game are both able to enhance an emotional response for the players. However, since some players also reported that sadness as an emotion made the game more unattractive to play in the future, it may be necessary for the game design to find a balance between positive and negative emotions to keep the game enjoyable in general.

## 4.2 Impact of Gameplay on Attitude

In the previous section the most relevant themes were identified regarding the elements of the game and the gaming experience of the participants. In this section, the impact and consequences of these experiences are laid out to establish a connection between the two.

Tony described games in general as a wasteful activity with little purpose beyond entertainment, which may indicate why he did not perceive the game as a medium to change someone's opinion about a topic in general.

"I do have to say, I treat it rather as a waste of time, honestly, so I try to find more productful entertainments than playing games." (Tony)

However, Tony did make a distinction between the game he was exposed to in this study and casual games he referred to earlier.

"It's hard to call it fun, but productive, for sure." (Tony)

He indicated how the game might have an effect on someone with an opinion that contradicts the message of the game. Like nearly half of the players, he described himself as liberal and open minded towards the issue of migration and therefore stated that may have been the reason the game did not change his opinion.

"It could be if I have different opinion, maybe I'll put it that way. It's hard to convince already convinced men, right?" (Tony)

It can also be assumed that the game would potentially have resulted in more enjoyment and consequently made attitude change more likely had it been perceived as more challenging.

#### 4.2.1 Portrayal of Refugee Situation

What mostly contributed to a better understanding of a refugee situation was the distinction of the game in three parts that each focused on a different aspect of refugee life, often beyond of what was known by the players prior to the game. These different aspects offered the possibility to experience various facets of refugee life that many of the players were previously unaware of. The exposure to these new aspects may have led to a better understanding for the difficult and varying situations of those leaving their country behind. The complexity of the issue at large was made visible through the different tasks and issues in the game, a complexity that many respondents were not aware of before playing the game.

"Normally you only see like small snippets of people's life in media, and like on news and stuff. Now you actually get the full scale of all these events that happened (...). That kind of made me aware of how powerless they are. I think." (Lisa)

"I always knew that these things happening to them. Maybe now, I feel it more than before."  
(Fara)

Conclusively, the game provided the participants with information that went beyond the complex issue of migration at large and focused on what forces individuals into that situation in the first place, which for many was a new aspect that the players had previously not considered in particular.

#### 4.2.2 Migration as a Problem

The issue of refugees being a burden to the host country or migration in general as a problem for Europe and its citizens was addressed by two respondents after the game, while it was addressed considerably more often in group DOC.

Two respondents pointed out that a clear distinction needs to be made between refugees in need and

"...those who just want to reap from the benefits of maybe a country. We have to work for it, and they would then not have to. I don't know if that's true, if there are many of those people here. I think that's also kind of a stereo type." (Lisa)



While Lisa was speaking from her own opinion she also reflected that this is a common stereotype and expresses that her knowledge about the issue is probably incomplete.

This also shows the insecurity of how to distinguish in the light of a complex topic and possibly some self-reflection towards the issue. Sharima referred to the last level where she was confronted with several statements about refugees, including stereotypes and a counter position against them:

"I did understand both parties a little bit better (...) I suppose there was this one neighbor but I don't really remember what she said anymore, something like it's okay either way or something but I'm so cautious something like that. Then I thought well of course you know there are also people in the street I see and then I think to myself well maybe I should be a little bit cautious and then I re-think and I think you know you judge them a little too fast and stuff like that. Maybe that's how I would link myself to that person." (Sharima)

Fara also expresses some reservation towards refugees but does not specify them.

"I don't have generally bad idea about all the refugees but it depends on their behavior."  
(Fara)

Negative statements about refugees and migration, legal or illegal, was addressed in the interviews, but only by few participants and not nearly as strongly by participants who watched the documentary where the migration issue at large was addressed much more often with less focus on the individual level presented in the game. This illustrated how the individual perspective of the game can contribute to a more personal understanding of what it means to be a refugee and the consequences for the situation on the individuals who have to flee rather than focus on the consequences for the host countries and European citizens, which are often guided by stereotypes.

#### 4.2.3 Reflection on Personal Behavior

Several participants reflected on their own behavior towards refugees and strangers in general during the interview. This was encouraged by including statements of different kinds by other game characters which are similar to stereotypes and public opinions in real life as some players also pointed out. This potentially not only made the game more realistic but also encouraged some players to think about the issue and their personal relationship to it more thoroughly. Sharima already mentioned in the questionnaire that she has understanding for both parties involved, so while this is not entirely perspective for her, the game may have encouraged her to think about the issue more. Sharima also explained how the game may have affected her regarding her own situation.

"Well I do think that even though I have heard stories about the situation stuff and even my parents were in the situation, I definitely think it also helped me reflect better on myself and it did help." (Sharima)

"...it was something that, yeah, makes you think twice about the things and the rights that you take for granted." (Tony)

These statements may indicate a slight change in understanding towards the situation at large and its meaning for different parties involved, not only refugees. Further, the respondent started to reflect on her own behavior and stereotypes towards strangers in her daily life and the struggle of not judging people too soon.

#### 4.2.4 Individual and Social Facilitation

Seeking additional information about the issue was the main type of individual facilitation that was addressed by the respondents. Francisco explained his neglecting of the web facts provided in the game with the unattractive design of the page which did not motivate him to spend more time exploring them.

"It was the site was not that attractive personally." (Francisco)

One player was motivated to seek out additional information about the topic at large beyond what was relevant for the game play. This however is also a participant who already described himself as interested in the issue prior to the study.

"...yeah, because I just wanted to know some additional information." (Tony)

Most of the players reflected on the situation in the game afterwards, applying the difficult conditions in the game to real life. They addressed the issue beyond the immediate gaming experience. This behavior might lead to individual or social facilitation in the future.

"Sometimes it's not only about you and your family, it's also about others but there must be a distinction between how far you can go, how much you can actually take with you." (Tim)

When asked whether they would talk about the game to others, many respondents answered with yes, while none of them had done it so far. Repeatedly, the respondents answered how in general they would share the game with others, but a certain context of the topic would be needed:

"I wouldn't say that I could recommend this to someone else, because to be honest, my circle of friends and people that I know, it's really easy to find all the information in general, not to play it just a game." (Diego)

Ando was the only one who had actually shared the game with someone and also wants to watch the documentary of the control group. He explained how he feels about the idea of the game in general which lead him to share it with other people.

"This happens, people have to know this happens. It's a good idea that it is in the game. Imagine if you don't speak their language and you're a refugee? That would be scary (...) I already told my sister. I was telling her, "It's quite fun, here's a link (...) I was thinking of watching the documentary too." (Ando)

The game encouraged some players to think about the issue and may enhance an interest in the topic in the future. Given that the participants played the game only once and for a short amount of time this development is encouraging for the effects of persuasive games.

## 4.3 Europe or Die

Due to the nature of the two different platforms that the participants were exposed to, game and documentary, different themes emerged during the data analysis. Many of the themes identified in group GAME were specific to the medium and did not surface during the analysis of the data from group DOC. However, patterns identified as relevant for group GAME have also been identified as important for group DOC which makes a comparison between the groups possible as intended.

### 4.3.1 Emotion

Most respondents described the documentary as emotional or stirring up emotions while watching it. The graphic images and display of violence against refugees were the most prominent reason for the respondents to perceive the documentary as emotional, even when the information itself was not new to them. General knowledge about refugee life and the struggle of fleeing were reported as knowledge by several respondents before the documentary, but the confrontation with the visual presentation of this knowledge did have an effect on the audience.

"That was quite shocking to me. It's not something I did not know that's happening; it's just another confirmation of my view of the situation." (Marisa)

"I mean, I did know that they're so cruel, but seeing it on videos obviously is different."  
(John)

Betty described a strong emotional response when watching the violent parts of the documentary.

"I think I remember myself covering my nose. Like, oh really?! They really do that to them?!"  
(Betty, visibly shocked)

One scene was perceived as most impressive by half of the respondents. First, the hospital scene displaying medical staff treating refugees in what was perceived as an inappropriate way, lacking respect and compassion towards them. For Karim, Christie and Marisa watching that scene resulted in shock and anger.

"... and then the doctor said they were just something along the lines of being filthy scum and they were all troublemakers. They do this every time. They have no consolidation for them whatsoever. He was just like oh this happens every day. They are just pests. This was really shocking actually to hear..." (Karim)

The graphic content of the documentary was clearly a relevant factor and addressed by many participants. While many stated they were already somewhat aware of the situation in border regions and at least suspected the refugees to be treated harshly, the documentary footage impressed several participants and the violent scenes were addressed most often during the interviews.

#### 4.3.2 Realism and Credibility

Realism in the control group has a somewhat different meaning than in the group GAME but can be compared to what in AAO was perceived as realistic storytelling. For a documentary, this indicated the question of realistic portrayal of the refugee situation but also the question of credibility of the content which was addressed by three respondents in terms of biased portrayal of the refugee situation.

The graphic and emotional presentation of the content resulted in different reactions of the respondents. Three respondents described the footage as biased, focusing on the victimizing portrayal of refugees without appropriately covering the situation of the border countries and their citizens who also face problems because of increased illegal migration.

"I think it gave a biased view. Because of course it only addressed the problem from one perspective and not also from the other. Not saying that is good or bad but I'm just saying that it should have offered some other perspective maybe." (Vincenzo)

"I feel like the documentary is so biased to begin with so I'm not sure what to think of it." (Karim)

Karim also pointed out how the graphic scenes showing violence against refugees were repeated multiple times throughout the video.

"The one thing, like I said earlier, is that I noticed that during the clips whenever they were using violence against the immigrants, I always noticed there was this clip where you had the immigrants sitting on the fence and the clip came back six times in the whole documentary (...).I paused and looked at it and compared to other images and it was definitely the same thing. It triggered me to believe that they didn't have much footage of this violent tendencies towards immigrants. I get the point they're making, but it will be more convincing if they would use more footage." (Karim)

A clear purpose of the documentary for those who described it as biased was to present the European Union and the border country Spain in particular in a bad way.

"I noticed that whenever there were some violent tendencies towards the immigrants, they would use the same clips over and over again in the video so I was a little skeptical at first. but also it was still thought provoking." (Karim)

"So they were trying to make Spain the bad guy and the European Union but that's not fair because it's not like it's their fault, we don't want you, or stuff like that. They have their own reasons not to accept a lot of people into the European Union." (Teodora)

Migration as a problem for the EU the border countries and their citizens in particular was also mentioned by three respondents, among them Vincenzo and Teodora who already described how they felt that a counter-position in the documentary as missing, and also by Christie, who reflected on the situation regarding how she perceives it in the Netherlands.

"... it upsets people that The Netherlands states that they don't have money for that [their own people], but do spend millions on those refugees, setting up places for them to sleep, or giving them permits or stuff like that. I've seen a lot of Dutch people, who don't like that, and like the fact that the refugees come here and take their money (...) those refugees come here don't have an education often, don't have a working background. A lot of them don't really work or integrate with the society because of the language barrier. That's why a lot of people keep seeing them as refugees, and never accept them as a big part of the society."  
(Christie)

Christie reported to be an immigrant herself and stated her nationality as Surinamese. In her questionnaire, she already stated that migration needed to be strict and refugees need to be integrated in terms of language and education. During the interview she did not comment on her own migration background but rather reflected on the situation at large in the Netherlands.

The way the situation is portrayed in the documentary clearly was relevant to many participants as they pointed out how other perspectives were missing to show a complete picture of the situation, namely the perspective of the EU in general, the EU border countries and the citizens living there. This was often related to the participants' personal background, indicating how they seemed to feel their own perspective was somewhat missing as well.

#### 4.3.3 Information

Information in the documentary was perceived mainly in two manners, it either led to a deeper interest in the documentary and the topic in general or it resulted in various emotions as stated in the previous section. The majority of the participants reported both obtaining factual information and new insights in the personal situation of the refugees involved. The emotional content was talked about slightly more during the interviews, but often the topics were brought up simultaneously and in relation to each other.

The information regarding the legal situation was perceived as shocking, wrong or surprising, particularly the illegal pushbacks performed by the border authorities and the three fences along the border. The uncertainty about where exactly the border was located was also mentioned by several respondents as a surprising or irritating fact.

Four respondents reported that they have learned new knowledge by watching the documentary and started to reflect on this knowledge during the interview. Especially the seemingly illegal activities of the border patrol caught the attention of these respondents.

"Yeah, especially those illegal pushbacks. I didn't know how those governments would get around to those regulations and such. There was also the notion I think somewhere near the end that Spain actually passed a law allowing these illegal pushbacks to keep going which was weird to say the least. It was illegal according to UN regulations. How can Spain just pass a law saying it's okay? It was really wrong in my opinion." (Karim)

The interest in additional information was mentioned as an important factor to watch the other parts of the documentary, sometimes with a connection to the personal history of the participants, as Marisa illustrates here:

"I'm Bulgarian so we border with Turkey. Right now we're building a huge fence to stop Syrian immigrants and people from the war area. I think it was actually in the fourth part that shows from that region. I didn't get there but I'm going to watch that." (Marisa)

In conclusion, while new information was gained for the participants, it seems that the way the situation is portrayed plays a more important or at least as important role as the actual information. This is illustrated by several participants who stated that the documentary confirmed or enhanced their knowledge or opinion by providing real footage in a somewhat shocking manner.



## 4.4 Impact of Documentary on Attitude

In the previous section the key themes were identified that emerged from the interviews with participants from group DOC. These themes illustrated how the respondents perceived the documentary and what made watching it enjoyable for them. In this section, the participants' perception of the impact of the documentary on them will be examined in connection to these themes.

### 4.4.1 Portrayal of Refugee Situation

Three respondents commented on how the documentary clearly focused on the side of the refugees, leaving the impression of a biased portrayal for several respondents:

"It's hard for a documentary like this wanting to change my perspective on that because there's no, as I said, no positive side towards the authorities." (Karim)

Those who perceived the documentary as biased also often described their own attitude towards the issue as having understanding for both sides, the refugees as well as the border patrol and Spain as the border country portrayed in part 1, stating that the main goal of the documentary was to portray Spain in a bad light while also saying that Spain is in a difficult situation itself, as is the European Union.

Nadia and Marisa perceived the content as balanced and accurate towards both the refugees' side and the border patrol. Both respondents also reflected on the situation and its consequences for both sides and expressed understanding for both situations and their various problems resulting out of it. In addition, both Nadia and Marisa stated to have known VICE beforehand and judged the production company as independent and trustworthy. This may have influenced their perception of the documentary and their judgment of its credibility.

"I really felt it was balanced, actually." (Nadia)

Betty explained how the new information in the documentary had an impact on her thoughts about human rights in general.

"I used to have more negative feelings about illegal immigrants, but then when I watch it, I think I feel more concerned about human rights." (Betty)

#### 4.4.2 Migration as a Problem

Many participants described the issue of migration and the large number of refugees migrating to Europe as a problem for the EU, the border countries or the citizens living in the border regions facing a lot of migration. Most of the participants have also expressed that view in the questionnaire as to how the EU is somewhat responsible for the refugees arriving in Europe, but also strongly call for restrictions and regulations to support and protect the EU citizens. This view was then also addressed multiple times during the interviews.

"Also, there's not enough space in terms of jobs and housing and everything..." (Teodora)

Migration as a threat to domestic job markets was addressed multiple times by general statements like the one Teodora provided. No participant mentioned personal experience in that direction or any kind of individual consequences they faced themselves regarding migration. The statements given can be described as general stereotypes rather than being related to personal experience.

"Also criminals come and that could be of course a problem for the population living there. For example, I don't know with the IS now. There could be people that are coming from IS." (Vincenzo)

Vincenzo illustrates here how migration waves are also often perceived as dangerous to the population as other participants have addressed as well. The comments are also largely general stereotypical statements rather than personal experience or factual knowledge.

#### 4.4.3 Individual and Social Facilitation

When being asked whether they should share the documentary with others, more than half of the respondents immediately answered with a yes, while three of them mentioned they already did share it with friends or family.

"Yeah, I told them [my friends]. I told them they should probably watch it because you become aware of something that you probably don't know because it's not really discussed."  
(Vincenzo)

For Marisa and Nadia, the producer of the documentary (VICE) played a role in wanting to share the video with others. The two participants were already familiar with the production company VICE and associated it with credibility, independence and high quality in film-making, which also played a role in whether or not to share it with others.

"Maybe I'm also a little bit biased because I saw the VICE on it. If I need to make a choice to watch BBC documentary about it and a VICE documentary about it I will chose the VICE documentary about it because I know that VICE in general portrays more realistic situations than other medium. Perhaps that also affected me in a positive way." (Marisa)

In terms of individual facilitation, the documentary also had an effect on four respondents who reported that they will watch the complete documentary, with Karim also mentioning he did not watch the trailer at the end of part 1 to not

"...spoil the other parts for him" (Karim).

"It got me very intrigued into watching more." (Karim)

The main reasons for being interested in watching the entire documentary was more information-seeking. Most of the respondents who would watch the other parts specifically stated their interest in getting to learn more about the situation of refugee life and border regions in particular. Karim also mentioned his interest in finding out whether there would be a solution in the future and if maybe the movie was pointing at that.

"I think I'm going to watch these two parts more when I get home today. Obviously I want to know what happens next and if the problem will be resolved in the future or if there are any solutions because at the end of part one it seemed like a hopeless situation for the immigrants." (Karim)

However, Teodora reported that she would not watch the other parts for several reasons. One of the reasons mentioned was the explicit violence in the video that she perceived as disturbing would bring up negative emotions while at the same time not adding any value, since there is nothing she personally can do about the situation.

"... it put me in kind of a sad mood and as superficial as that sounds, I don't know if I would watch the other ones because it's not a subject that I'm very interested in and yeah, I guess it could be informative but it doesn't... it's not educational or anything and it wouldn't be watching it for pleasure, just yeah (...) and it just, and I really don't want to see that. Yeah, I really want to be a bit ignorant about it because there isn't a lot we can do about it."  
(Teodora)

Teodora did not anticipate gaining new information and anything of value that would make her watch the other parts. Also, there was no comment on seeking out more information through other channels, on the contrary, Teodora said she generally would not seek out information about this issue:

"...if I see on YouTube, recommended video, something about immigration, I'm not very... yeah, I won't click it." (Teodora)

The majority of the other participants who reported interested in the topic in the questionnaire and during the interview were either motivated to watch the other parts of the documentary, seek out additional information or share the video with others. Teodora, as a respondent who did not report particular interest in migration and refugees, did not report an interest in these additional activities after watching the documentary. This may illustrate how participants who already have a certain interest in the topic can be motivated to follow up on that interest in various ways, while participants who prior to watching the documentary did not have similar interest were also less likely to be motivated to act.

## 4.5 Comparison

After identifying and analyzing the emerged themes for both group DOC and group GAME, this section is dedicated to a comparison between the two groups. Comparing the themes serves the purpose to provide a clear overview of what distinguishes the two media and what they may have in common. In doing so, the particular features of both media become clearer and a conclusion to answer the research question can be formulated.

### 4.5.1 Individual and Social Facilitation

Regarding social facilitation, the documentary showed more immediate impact than the game. The documentary was shared three times by the respondents prior to the interview meeting, unlike the game, which only one of the respondents had shared on their own and fewer mentioned they would share it in the future. Many participants explained that a certain context would be needed to bring up the game in a conversation and mention it to others, while that did not seem to be that much of an issue for the documentary. This can potentially be explained with the nature of the platform. Television is an established medium used and enjoyed by the vast majority of media users while video games have a more specific user group. Those who did indicate they would share the game were mostly gamers themselves, which illustrates that a medium may enhance social facilitation mostly among people who already have a personal preference for that platform before being introduced to a new game.

Regarding individual facilitation, the participants of group GAME more often reflected on their own behavior and attitude towards strangers and refugees, stating multiple times how they personally judge strangers too soon without knowing them or occasionally get caught in stereotypes about migration and refugees. Therefore, the game can be judged as more effective regarding individual facilitation. The lack in social facilitation appears mostly to be due to the game design and not due to the topic of the game or the story in general. It can therefore be assumed that with an improved design social facilitation may increase as well for a persuasive game in general.

#### 4.5.2 Information

Participants in both groups gained new knowledge which partly influenced their attitude towards the issue. The graphic and violent presentation of the information in the documentary appears to have an impact on the participants; specifically they appear to recall the information in more detail when addressing it in the interview. The information in the game was mainly given in terms of how an individual refugee experiences the situation, which made it more accessible for some participants. Surprising or shocking factual information was mainly perceived in the documentary.

In both groups, participants described the information given as information not covered by mainstream media or as background information, particularly because both media portrayed not only the immediate border crossing situation but the background in the refugees' home country that ultimately led up to becoming a refugee, which was appreciated in both groups.

#### 4.5.3 Enjoyment

Both game and documentary were often described as enjoyable. However, the strong emotional aspect of the documentary was putting one respondent off and will likely keep her from seeking out the other parts in the future. The players of AAO all found at least one aspect of the game they enjoyed, although challenge was often missing, especially for regular gamers. None of the respondents would play the game again, which is understandable since the questions would be the same and the challenge even smaller. However, the story of a refugee itself in a game was interesting to the majority of the respondents; it was mostly the game design that was lacking features to make it more interesting to play. Tony and Tim (group game) asked for the link to the documentary after the interview, which also illustrates their interest in more information about the topic.

Both game and documentary were described as informative and providing information was the most relevant characteristic for most participants.

While three respondents perceived a biased view of the documentary, nobody pointed out the same issue in the game, although the portrayal was similar in some aspects (but lacking the graphic violence of a video). It can be argued that this is due to the interactivity of the game in contrast to the passive watching of a documentary.

Interactivity was experienced through the decision-making in the game. The players were able to perceive the gameplay as interactive by experiencing direct consequences to their decisions, which was described as enjoying by several participants.

#### 4.5.3 Opinion & Attitude

Participants in both groups stated their view on the issue did not change significantly when asked directly. However, participants in both groups started to reflect on their own behavior or attitude towards refugees, migrants or strangers in general in their daily life and connected real life situations to those situations presented in the game, for example the stereotypes displayed in level three of the game and the treatment of refugees by authorities in the documentary.

The majority of participants in both groups reported personal experience regarding migration, whether it was being from border countries, identifying as an immigrant or knowing stories about refugees and migration from close sources. This, however, played out differently in both groups. Group GAME more often identified with refugees, while group DOC also often identified with authorities and border countries and tended to reflect on the situation at large more than on the perspective of individual refugees. This may have influenced the level of understanding for the situation of refugees as individuals. The following table illustrates this finding.

| GAME                  |  |   | DOC               |   |  |
|-----------------------|--|---|-------------------|---|--|
|                       | Personal History   | Attitude  |                   | Personal History  | Attitude   |
| Sharima (Afghanistan) | "...my parents were refugees..."   | "[The game] did help to sort of understand the situations that these refugees are in..."                    | Marisa (Bulgaria) | "Right now we [Bulgaria] are building a huge fence to stop Syrian immigrants and people from the war area." | "I wouldn't judge a negative opinion in this situation. If [the authorities are] fed up with it, they have their reasons." |
| Francisco (Italy)     | "Because I'm also an immigrant."   | "(...) I can relate [to the refugees]."   | Teodora (Romania) | "People also from Eastern Europe go to Western Europe for jobs."  | "Both sides [refugees and authorities] are right in their own way."  |
| Fara (Iran)           | "(...) I know about those people in my country that they were in prison because of those things that they believe in." | "I always knew that these things happening to them. Maybe now, I feel it more than before."                 | Nadia (Aruba)     | "People would tell me, "Hey, you don't look Antillean." Like you're not dark skin and poor."                | "They both [refugees and authorities] have valid views."   |
| Ando (Greece)         | "I used to have the same stress [as an immigrant]."  | "...the forums are full of [stereotypes] and it makes you want to pull your hair out."                      | Vincenzo (Italy)  | "There is the issue [immigration] going on in Italy."   | "Maybe other countries should do more [to support Italy]."   |
| Tony (Poland)         | "[In Poland] many people were also forced to sign things."   | "Making people aware of the full process of escaping the country to finding a new life and better world..." | Betty (Thailand)  | "I myself was migrant."   | "I also understand the authority that they just do their work."  |

Table 1

The interest in gaining additional information was represented in both groups. In group GAME it surfaced as the interest in the webfacts provided in each chapter and also, in the case of two players, the interest in watching the documentary. The participants in group DOC showed interest in additional information mainly in their interest to watch the full documentary, as stated by half of all respondents.

As was expected due to the nature of the two platforms and based on the theory, identification with the media character was more prominent in the game than in the documentary. In addition, decision-making was naturally not an option in the documentary given the lack of interactivity of television.



Emotions played a role in both groups, albeit it was addressed much more often in group DOC, mainly due to the graphic display of violence towards the refugees. This was illustrated mainly by describing the content as shocking, sad or depressing.

Both platforms had an effect on their users in different ways and while this study is limited to a relatively small data set and generally subject to the limitations of a singular case study, the conclusions drawn from this analysis aim to contribute to a better understanding of how video games do and should address complex social and political issues to result in attitude change after playing them. The conclusions will be laid out in the following chapter.

## 5. Conclusion

The present study does not only aim to contribute to scientific research, but also wants to propose how its findings can contribute to better game design in the future. Therefore, to conclude this paper, in addition to scientific implications of this research suggestions are presented that potentially make persuasive games more effective and are based on the findings of this research. While the recommendations are based on the study of a singular game with a small number of participants, the findings can be placed within previous research as well as existing theory and are therefore considered relevant to the field of persuasive gaming at large.

### 5.1 Theoretical Implications

The results drawn from this study suggest that the persuasive game *Against All Odds* can influence a player's attitude in various ways that differ from the influence of other media platforms, as the comparison with the documentary indicated. As proposed in the theory chapter, identification and interactivity were identified as important factors in game enjoyment (Chung & Yoo, 2008; Cohen, 2001; Klimmt et al., 2009; Van Looy et al., 2012). These specific game features also appear to have an effect on how the players perceive the refugee's situation and how they reflect on their personal attitude towards strangers and refugees. This reinforces previous theory stating that identification with a media character can enhance a more positive attitude towards the social group the avatar represents (Cohen, 2001). This is particularly relevant considering that the participants of group GAME appeared to be more concerned with the individual refugee and his or her situation than participants of group DOC, who generally referred to the issue in a broader context addressing migration in general. The current study shows how these game features generally have the potential to not only engage its players in the story but also provide an individual perspective with the help of a well designed game atmosphere. To fully reach the potential of these features the game design is crucial and may, if not done well enough, even hinder this potential. While challenge is identified as one of the most important features to make a game enjoyable for its players (Hou, 2011; Jansz & Tanis, 2007; Sweetser & Wyeth, 2005), the lack of challenge can be balanced out by other engaging game elements as the present study suggests.

Decision-making as a form of control in the game is a strong and popular feature of AAO and was often described as enjoyable, as was predicted based on previous research and theory (Sherry, 2004; Sweetser & Wyeth, 2005), although the outcome of the decisions seem to be too predictable and simple for some players, indicating again the importance of challenge.

In conclusion, the U&G factors and the concept of identification presented in the theory chapter have proven to be appropriate in the context of this study. This further indicates their relevance regarding game research and the importance to apply them to similar studies in the future to gather additional data and support the results. Finally, future research should focus on the effects of persuasive games on specific social groups to specify which game features are effective in which context. This includes a stronger distinction between gamers and non-gamers as factors leading to enjoyment seem to differ between these groups. The inclusion of the players' personal (migration) background in relation to game enjoyment and attitude change may also be promising to deliver new results considering how many participants drew a personal connection to the game narrative.

## 5.2 Implications for Game Design

The game AAO played in a generic country and also ended in a generic country without mentioning names or identifying languages. The present results indicate that this feature made it more accessible to more people since it was not tied to a specific location as was the documentary. This game feature potentially provides an advantage as it made the story more relatable as players can apply it to themselves more easily, a game feature that was probably by design and may be useful in future persuasive games as well.

The present study suggests that a medium is more likely to be shared with others as a form of social facilitation, when the user already had a positive preference for the platform to begin with. Gamers share games more often than non-gamers, even if the game itself was not perceived as better or worse by one of these groups. This is a relevant aspect when designing a game with the purpose of social facilitation in mind. A clearer distinction between different demographics also needs to be taken into account to examine how to make a game most attractive for its target group, which further indicates that a game should have a specific target group to begin with.

Current persuasive games, including AAO, are often lacking to use their full potential especially regarding game design. Insufficient game design is often a symptom of lack of financial funding for games out of the big commercial entertainment industry. By drawing more attention to video games as a form of achieving social change, researchers and game designers may be able to draw more attention to the potential of the platform and improve their support in the long term. The present study suggests that stereotypes without factual knowledge are still largely dominating the public discourse about refugees and migration as many participants illustrated. While the game did offer additional information in the form of webfacts, the facts were often ignored and rarely paid attention to other than as a way to finish the level successfully. The facts themselves appear long and unstructured, and some participants described them as unattractive to read. However, based on the findings of this study, a certain well-balanced amount of factual information in addition to the personal perspective of the game can not only enhance the player's interest in the topic but also have an impact on their attitude given that some stereotypes are based on false or incomplete information which the game could provide. This result is supported by previous research results in persuasive gaming which also suggests that games can offer new information to players in an engaging way as well as encourage them to discuss the issue with others and share with others (De Grove et al., 2012; Neys & Jansz, 2010; Raessens, 2010).

### 5.3 Limitations

While this study was carried out carefully and with regards to existing theory and research, some limitations need to be addressed. First, the participants of the study only represent a small part of society, especially considering that all of them are enrolled in or have completed a program in higher education. Further, while interest and knowledge about migration and refugees varied among the participants, none of them had a clearly negative, as in right-wing, opinion about migration which may have lead to different results. In addition, while a wide range of ages are represented in the study, the vast majority of participants are in their early 20s which is a relevant factor especially in media research that includes platforms like video games which are often associated with a certain age group.

The comparison of two different platforms causes different themes and patterns to emerge which further made an evaluation more difficult, especially with a relatively small data set. However, the comparison was a necessary and important part of this study and the research was designed and conducted to examine the participants' personal perceptions with similar questions to compare the data and be guided by the theory.

The results of this study can obviously not be generalized, but do offer individual perspectives of how a certain phenomenon is perceived in society. Given that interviews result in individual and personal answers, the question of validity in a qualitative study obviously differs from a quantitative study with clear and exact measurements. It is therefore more appropriate to ask, in a qualitative context, not whether the results can be generalized globally, but rather if the knowledge that was gathered in an individual interview situation might be transported to other situations that are similarly relevant (Kvale, 2007b). Considering that the results of this research can be put in relation to previous research in the field, the study can be considered valid and relevant.

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## Appendix A

### Questionnaire

0. Age, highest level of education, nationality
  
1. On average, how much time do you usually spend playing video games/computer games?
  
2. What do you like most about playing video games?
  
3. How would you describe your interest in migration/refugee issues in general?
  
4. Do you generally follow the news on the topic?
  
5. What is your opinion on (undocumented) migration into the EU?
  
6. What do you think are the main reasons for refugees to come to Europe?
  
7. Do you think NL/the EU/ has responsibility to care for them? How so?
  
8. Do you have personal relationships with refugees/people who have immigrated from developing countries?'

**Thank you!**

## Appendix B

### Interview Questions group GAME

#### General perception

(Challenge, immersion, enjoyment)

1. How did you like the game?

- What did you like about it? What didn't you like?
- Can you describe some details that stuck out?
- What was the most interesting part to you? Why this part?

2. Did the game hold your attention or were you distracted? How?

3. How was the level of difficulty of the game?

- Can you describe what exactly was difficult? (or too easy)

4. Where you able to solve all the tasks, finish all levels?

- Did you experience some problems during the game?
- How did you solve them?

#### Game play

(Choice, control, decision-making, identification, role-taking, information-seeking, presence, engagement)

1. How did you choose your avatar?

- Where you satisfied with your choice during the game?
- Did you empathize with your avatar, was it important during the game?

2. You had to make some decisions throughout the game.

- How did you experience them?
- Can you explain how you made these choices? (As yourself or your avatar)

3. How did you feel about the consequences of these choices?

- Did this change during the game? How?

4. Did you think the game was realistic?

- How or how not? What made it realistic?

5. When you moved through the game, did it feel like you were there, you're part of the story?

### **Specifics of the game**

1. How did you decide to sign the statements in the first chapter?
  - How did you feel about the consequences of these choices?
  - Did you decide for yourself or your avatar? Does it make a difference?
2. How did you decide what you pack when you fled the country?
  - Can you describe how you felt during that part?
  - How did you decide what to take? was it hard to decide?
3. You had to pick an escape route. How did you decide for one?
4. What was the most challenging part for you?
  - Can you explain why?
5. During the last part you were confronted with people's opinions about you.
  - How did you feel about that?
  - What do you think about their comments about your character?
  - Could you identify yourself with any of these statements? Differently than before the game?
6. Did you notice the Web facts?
  - If you read them, why did you read them?
  - How did they fit into the game for you?
  - In your opinion what was their purpose?

## **Consequences**

(Social and individual facilitation, attitude, knowledge)

1. How do you find the story the game was telling?

- What was its purpose in your opinion?

2. Do you feel you learned something new about the issue?

- How so?

3. Did the game show you aspects of migration or refugee life you were previously unaware of?

- Can you say which?

- What part of the game contributed to that?

4. How did you feel about the outcome, about the ending of the game?

5. Do you feel differently about the issue now, in some aspect?

- Can you describe how?

- In terms of why people flee, who is responsible, the ways in which other countries should help...

6. Did the story affect you somehow?

- Did you feel emotionally involved, feel something towards those characters

7. Are those characters in the game like people you know or might know? Was it realistic, believable?

8. Would you tell your friends about this game?

- What would you tell them?

9. Would you want to play it again? Why or why not?

10. Anything else you want to say?

## Appendix C

### Interview Questions group DOC

#### General perception

(Challenge, immersion, enjoyment)

1. What did you think of the documentary?
  - Was it what you expected? How or how not?
  - What did you like about it? Not like about it?
  - Can you describe some details that stuck out?
2. Did it hold your attention? How?
3. What did you think of the story that was being told? (accurate, realistic, believable)

#### About the content

(Choice, control, decision-making, identification, role-taking, information-seeking, presence, engagement)

1. Did you think the story was realistic?
  - How or how not?
2. When you watched the documentary, did it feel like you were there, you're part of the story?
3. Did you feel you were emotionally involved?  
Any emotions coming up? Some specific parts?
4. Did some of the people in the doc stick out to you? How?
5. How was to background music to you? (distracting, engaging)

#### Specifics of the documentary

1. Different people talked about the issue (border patrol, refugees, activists).
  - How do you feel about the statements of the border patrol?
  - Of the refugees telling their story?
  - was there a part/certain statements that impressed you in particular? How?
2. Could you identify with any of them? Did you find your own opinion somewhere?



3. Would you argue with some of them? About what?
4. Do you feel all sites were portrayed accurately, in a way that makes sense to you?
5. Did the story hold your attention?

### **Consequences**

(Social and individual facilitation, attitude, knowledge)

1. How do you find the story the doc was telling?
  - What was its main purpose in your opinion?
  - Do you think it succeeded? How?
2. Do you feel you learned something new about the issue?
  - How so? What specifically?
3. Did the doc show you aspects of migration or refugee life you were previously unaware of?
  - Can you say which?
  - What part of the doc contributed to that?
  - Did that change your opinion on the issue?
4. Did you see something unexpected, something that surprised you?
5. How did you feel about the ending? (man says don't come here)
6. Would you tell your friends about this doc?
  - What would you tell them?
7. At the end you saw the trailer to the following part, would you want to watch it?
8. How do you feel about a documentary as a medium to address an issue like this one? In comparison with other media (newspaper, ...)
9. Do you watch documentaries sometimes? Why or why not?
10. Anything else you want to add?

**Thank you!**

## Appendix D

### Participants Overview (n=16)

| Name      | Age | Gender | Nationality                       | Level of Education (enrolled or completed) | Group       |
|-----------|-----|--------|-----------------------------------|--|-------------|
| Diego     | 30  | Male   | Mexico                            | Bachelor                                   | Game        |
| Tim       | 21  | Male   | Germany                           | Bachelor                                   | Game        |
| Lisa      | 22  | Female | Netherlands                       | Bachelor                                   | Game        |
| Sharima   | 19  | Female | Netherlands (born in Afghanistan) | Bachelor                                   | Game        |
| Francisco | 26  | Male   | Netherlands (born in Italy)       | VWO  | Game        |
| Fara      | 27  | Female | Iran                              | Master                                     | Game        |
| Ando      | 31  | Male   | Greece                            | Master                                     | Game        |
| Tony      | 23  | Male   | Poland                            | Master                                     | Game        |
| John      | 24  | Male   | United States                     | Bachelor                                   | Documentary |
| Karim     | 19  | Male   | Netherlands                       | Bachelor                                   | Documentary |
| Vincenzo  | 19  | Male   | Italy                             | Bachelor                                   | Documentary |
| Marisa    | 26  | Female | Bulgaria                          | Bachelor                                   | Documentary |
| Teodora   | 19  | Female | Romania                           | Bachelor                                   | Documentary |
| Nadia     | 47  | Female | Netherlands (born in Aruba)       | HBO  | Documentary |
| Christie  | 20  | Female | Suriname                          | Bachelor                                   | Documentary |
| Betty     | 21  | Female | Thailand                          | Bachelor                                   | Documentary |