Researching player experiences through the use of different qualitative methods

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ABSTRACT

Since gameplay is only realized when the player and game interact, studying player experiences is complicated. Most research designs often emphasise either the structure of the game or the player in isolation of the game itself. In this study an attempt was made to test three different qualitative methods to study playing styles and by extension player experiences, while trying to take into account both the player and the game. An analysis scheme was developed to serve as a framework within the three methods and to direct respondents' attention to the interaction with the game. 42 university students (casual and hardcore gamers) participated in the study during three months after which they wrote a paper on their playing style. During the first three weeks respondents had to fill in a diary every time they had played the videogame. Four weeks later, respondents participated in the video commentary model (VCM). In a game experience lab, a researcher observed the respondent playing the game he had played during the diary study. Afterwards, the researcher interviewed the player on different aspects of his playing style, with the aid of the gameplay session video. Finally, respondents that played the same game participated in a focus group interview (FGI), discussing the topics that stemmed from the diary and the video commentary model. Based on theoretical arguments and participants' evaluation of the methods, we contend that all three methods are suitable to study player experiences. However, methodological triangulation provides the researcher with more accurate data, allowing to study gamers both in context (diary), through gameplay activities (VCM) and by interaction with other players (FGI).

Author Keywords

Video games, player experience, playing style, video commentary model, diary method, focus group interview

INTRODUCTION

Video games can undoubtedly be seen as a very complex, intriguing medium, capable of engaging multiple senses and creating a vast range of experiences. Consequently, video games have attired the attention of scholars from different research schools, focusing on diverse aspects such as the ontology of games [18, 22], virtual economies [7], digital game involvement [6], uses and gratifications of playing video games [32], and the possible detrimental [2] or positive effects [11] of playing video games. The last decade we have seen a boom of game-related research and one might say we are steadily coming to grips with this research subject.

Games are produced by designers/teams of developers and consumed by players [19]. The designers create the game rules that the player interacts with. This consumption, however, is relatively unpredictable compared to other media because the scriptonic game elements are partly dependent on the player's choices [12]. Although this interaction between game and player is widely accepted, much of the game-related research emphasises either the structure of the game (e.g. game studies, game theory) or the player in isolation of the game itself (e.g. socio-psychology). What is lacking is empirical research investigating players' experiences and their interaction with the game. One reason is probably the current, limited knowledge on methodologies that can be fruitful to study players' experiences and interaction with the game. Therefore, this paper seeks to discuss some of the ways in which researchers can investigate the complex relationship between the player and the game methodologically by the use of qualitative approaches. More specifically, we will discuss an ongoing research project dealing with different playing styles, and by discussing the methods we used, we hope to contribute to the body of research addressing the question how to study video game players.

First, we will briefly present the aim and theoretical background of the research project. Following a short introduction on qualitative methodologies to study player experiences and an in-depth look at the way we implemented three of them in our research project, the participants' self-assessment of these methods will be discussed. As such, we restrict ourselves to a theoretical point of view and that of the participants. A stance based on our own analysis of the raw data will be presented in a

following paper. Finally, we will end this paper with a summary of our findings.

PLAYER EXPERIENCES

In this study on player experiences, we try to come to grips with what is commonly referred to as playing styles. As playing styles are dependent both on the game and the player, the ideal research method would include a thorough examination of the game mechanics and a detailed analysis of players' experiences. However, video games are often complex and difficult to analyse for those who are not specialized in game design or computer programming. An appropriate alternative is to look at player interactions with the game or let respondents think about those interactions. Accordingly, one might argue that both the player and the game are taken into account, albeit the latter only indirectly. The final outcome of this research project, a typology of playing styles or at least concepts that enable us to distinguish between different types of gamers, should (1) give us insight in the different experiences games elicit and (2) allow us to better understand the possible effects of video game play. Williams [36] expressed the need for this latter point as follows: "… video games are assumed violent to some degree without an understanding of the different types of content, or an agreed-upon typology for genre or playing style."

Generally speaking, as a result of the focus on the player, this study can be broadly categorized within the uses and gratifications approach. This research paradigm acknowledges that different users have different expectations and uses of the same media and that selecting media is a purposeful activity [31]. The rationale of this study is influenced by work from researchers in this tradition such as Bartle [4], Utz [33], Sherry, Lucas, Greenberg, & Lachlan [32], and Yee [38]. Our study setup, however, distinguishes itself from this recent scholarly work by (1) scrutinizing playing styles instead of player motivations and (2) by combining different methods in the exploratory phase. While, for instance, Sherry, Lucas, Greenberg, & Lachlan [32] limited themselves to focus group interviews and Yee [38] to qualitative data from open-ended questions, we decided to combine research methods used in the field of Human-Computer Interaction research and the social sciences to investigate which approach offers the most interesting results. Furthermore, triangulating different methods allows to eliminate a few of the weaknesses of the uses and gratifications approach[1]. There is, for instance, the problem of the reliance on self-reports. Several researchers argue that subjects have generally poor introspective access to the psychological processes that guide our behaviour [29; 16]. Moreover, most studies are carried out using only in-depth interviews or focus group interviews, which, in the case of games studies, separates the video game experience from the data.

[1] For a full description of the strengths and weaknesses of the uses and gratifications approach in the digital age see [31]

STUDYING PLAYER EXPERIENCES

The main goal of this research project was to explore and evaluate different methods for the analysis of player experiences (i.c. playing styles). Because player experiences cannot be fully grasped by merely counting the occurrence of specific actions, we will only focus on some qualitative methods. Generally speaking, qualitative approaches to study players can be broken down into observations and self-reports, two techniques that can be used complementary. While observations enable us to examine the interaction between the user and the medium, self-reports allow us to study subjective experiences. We chose to combine those methodologies, borrowing methods from the field of Human-Computer Interaction research (video commentary) and the social sciences (diary study, focus group interviews) and adapted them to fit in a videogame context. We expected that these methods would complement each other and could produce interesting insights on playing styles as well as on the methodology used. However, because games are only realized once players start interacting with the game [14] and because of the specific aims of most player studies, the necessity arises to tailor those methods, so that study participants are apt to discover interactions between the player and the game. In the case of playing styles, we chose to construct an adequate framework for the participants, which shifts the attention of the participant to the research subject but at the same time allows for enough freedom for the respondents to formulate their experiences. Because of the possible profound influence on the data-gathering, we will start by briefly elaborating on the analysis scheme that was used as the framework for the three methods. Subsequently, attention will be given to the three methods used and how they were implemented in the research design.

Analysis scheme

We drew on large bodies of literature from different fields, such as game design, game studies, socio-psychology, ludology, and literary theory in order to find meaningful categories the player interacts with while playing a game. We did not limit ourselves to a single theoretical angle inasmuch it was thought to be important to let the player decide which elements are important for his game play experience. In addition, we chose to use rather loose categories to make sure players were guided by their own interpretation.

Fictional worlds

Much debate has been generated about the precise role of narratives in video games in the last decade (cfr. ludology-narratology (non-)debate). This controversy,

however, has been lessened and most researchers agree that narrative aspects (back story, cut-scenes, dialogues,…) serve a function within the game play experience. In his seminal work, Juul [22], for instance, acknowledges the power of fiction to capture the player's attention, while not disregarding the game rules that define which interactions are possible in a fictional world. As such, the fictional world serves several functions. On the one hand, fiction can cue the rules of the games, and on the other hand the fiction can shape the game play experience. In Grand Theft Auto IV (Rockstar, 2008), for instance, the fiction informs the player about the game rules (guns are probably there to fire), but the fiction might also affect some players' decisions on whether or not to kill certain characters. In sum, we define fictional worlds as any world imagined by the player [22], based upon representational aspects, such as the story, cut-scenes, characters, graphics, dialogues, etc.

Game goals

Game goals guide the player to a large extent through the game because, in general, only some of the possible outcomes are assigned positive values [22]. This does not imply that players cannot impose their own goals. Myer [28]'s character in City of Heroes (2004), for instance, was hunted down by other players because he played the game according to the game's explicit game goals and rules. In recent games, game designers also deliberately allow the player to ignore or create game goals. Some games either allow to deviate from the stated goals (e.g. Grand Theft Auto) or do not contain explicit game goals but only 'paths of least resistance' (The Sims 2) [23]. Almost all type of games, but notably the latter two examples, allow for a range of playing styles.

Game world

Although the game world is almost never a clearly defined category within analysis schemes (e.g.[1]), it can easily be spotted within categories used by other researchers. In the analysis scheme of Consalvo and Dutton [10], for instance, the game world is grasped within 'interaction mapping', and Williams [37] incorporated the game world within his conceptualization of 'the schematic'. Our notion of the game world is restricted to the organization and structure of the game space because interactions with non playable characters and the equipment of the character(s) are captured within our notion of entities. Nevertheless, we are aware of the possible interplay between the categories.

Entities

Our concept of entities encompasses the broad conceptualization of Fabricatore, Nussbaum and Rosas [13], which includes the action potential of the player controlled character(s), the object structure or equipment of the player controlled character(s), and the non playable characters (NPC's). Similar conceptualizations of entities can among others be found in Consalvo and Dutton [9] and Zagal, Mateas, Férnandez-Vara, Hochhalter, and Lichti [39]. It is clear that manipulating an entity reflects one's playing style.

Interface

The information players receive and how they use this information will to a large extent determine the actions of players because this is the place where the player and game meet [39], where interaction takes place. More specifically, the interface can be defined as any on-screen *or auditory* information that provides the player with information concerning the life, health, location or status of the character(s), as well as battle or action menus, nested menus that control options such as advancement grids or weapon selections, or additional screens that give the player more control over manipulating elements of gameplay [9 (words in italic added by authors)].

Controls

PC and consoles, such as PlayStation, Xbox, and Wii are usually equipped with input devices, consisting of several buttons, analog sticks, D-pads, scroll wheels, motion sensors etc., allowing for seemingly endless combinations and powerful game play. For the purpose of this study, we were most interested in the commands the player uses and the mental and physical effort the player exhibits to learn the controls. While this category can possibly be situated within the category interface (e.g. [39]), it was decided to render this category more visible, as players are often unaware of the input device while playing the game.

METHODOLOGY

Procedure

Player experiences were analyzed within the context of a seminar course on popular culture. 42 students participated in the seminar in order to obtain course credits.

At the start of the seminar, participants filled in a questionnaire, asking for their three favourite games, game genre preference, game motivations, years of gaming experience as well as some demographic information. Two criteria were used in order to include a game from the list of the respondents' favourite games in the selection: diversity and familiarity. As for diversity, given the focus of this study on analyzing the player experience, it was chosen to include a variety of game genres. As a result, different game play mechanisms from different genres such as First Person Shooters, fighting, platform, strategy, and narrative play were taken into account. Another criteria for selecting game titles was familiarity. Players had to have some prior experience with and preference for the game or game genre in order to eliminate what Aarseth denominates as the "explorative stage" [1]. Generally speaking, participants entered the phase of total completion, repeated play, or expert play during the seminar course [1]. Participants were divided

into different groups according to their video game and genre preferences. The following games were assigned: one strategy game, Age of Empires 2 (1999); one online shooter, Counter-Strike 1.6 (2003); one offline shooter, Half Life 2 (2004); two sports games, FIFA 07 (2006) and Wii Sports (2006); one fighting game, Tekken 5 (2005); one platform game, The Legend of Spyro: The Eternal Night (2007); one simulation game, The Sims 2 (2004); and two crossovers, Grand Theft Auto: San Andreas (2004) and Grand Theft Auto IV (2008).

Each of the ten games in the sample was played by at least three different participants and each group consisted of participants with different years of gaming experience (1 to 20 years), so that all groups had more or less experienced gamers amongst their midst.

Before data gathering started, the respondents were familiarized with the analysis scheme in one lesson of two hours, in which they were encouraged to pose questions. In the first weeks of the study, the participants were asked to play one of the selected games for fifteen hours or more. During this initial stage, they did not get many instructions, in order to have them follow their own motivations, intuitions and preferred playing style. Participants were asked to write these down in a 'game diary' that was developed with the study of playing styles in mind. Diaries were made available as paper booklets. Before the start of the actual study the diary was refined by the two authors using different games (S.T.A.L.K.E.R. Clear Sky, 2008; Rainbow Six: Vegas 2, 2008; Metal Gear Solid 4, 2008). The 'game diary' provided structured noting space to facilitate the elicitation of the player's experience. More specifically, space was provided to take notes with regard to the six categories of the analysis scheme, and extra space was provided to let players write down what they liked or disliked in the game session, why they had played, and how they would describe their own style of play. The participants were instructed to take notes after approximately 45 minutes of gaming. This time interval was tested beforehand, less than 45 minutes of gaming could break the flow of the game, but more than one hour without taking notes had a negative influence on the quality of notes taken.

After four weeks of playing, filling in and analyzing the diary, all participants had to turn in their diary and a preliminary report and mindmap[2] of their observations and how they contemplated their playing style.

After seven weeks, gamers from the different groups came by for additional observations through the use of the video commentary model (VCM). Gamers took place in a living room, where they played the game for approximately 30 minutes while being observed by cameras, a fellow group member taking notes and through a one way mirror by the authors of this paper. These fellow group members were first extensively familiarized with the VCM. The game itself was recorded audiovisually using screen capture hardware. In order not to fully break the home context, we encouraged players to bring their own game equipment, such as controllers, mouse, etc. We had also reserved some extra time before the start of the VCM, so the players could copy their configurations and savegames to the pc or console and to adjust the control scheme. For pc and consoles, hardware video capturing was used in order to prevent laggy gameplay due to capturing software running in the background. After the play sessions, the participant (i.e. the gamer) discussed his motivations and playing style with the fellow group member, based on the recording, the notes made by this group member and the six categories from the analysis scheme.

After eight weeks, six of the ten groups joined a focus group interview (FGI), in which a discussion was held around the central categories of the analysis scheme with one of the authors as moderator. At the start of the FGI some general questions were introduced to set the discussion in motion. Later on in the FGI, the participants went into detail on the central topic of interest, namely playing style.

Respondents in the VCM and FGI typed out the interviews and in the case of the VCM they also had the audiovisual recording at their disposal. After 12 weeks, the participants had to write a final paper, in which they had to incorporate the insights they gained on their playing style from the diary, VCM and FGI. The raw data (diaries, audiovisual recording VCM, VCM-interview transcription, FGI transcription) are also currently being analyzed by the researchers themselves using the qualitative research software package NVivo 8. Those results, however, will not be discussed in this paper.

Finally, the majority of the participants anonymously filled in a questionnaire to evaluate the different methods. They were asked on a 7-point Likert scale to indicate how interesting to do and how valuable each method was in order to learn about their playing style. In addition, open questions probed why the respondents found each method valuable.

Three qualitative methods to study player experiences

Diary

Diary studies are used to provide reports and insights on people's experiences in daily lives [5]. As we were interested in different aspects of the gaming experience throughout everyday life, we provided the participants

[2] The mindmap was a visual representation, radially arranged around the central key word, playing style, and the elements of the analysis scheme. It was used to organize and visualize participants' observations, thoughts and experiences.

with paper diaries. It was important that players could write down their motivations and experiences concerning gaming in a familiar context like their own living room or in the proximity of their own gaming material.

Known drawbacks of diary studies are the high level of commitment needed from the participant, habituation, reactance and the fact that the information obtained is second-hand [5]. First, filling out a diary every day or hour can be a burden [8, 27] and requires a higher level of commitment compared to other inquiry methods, such as once-only questionnaires [5]. Second, the data can suffer from what is called habituation, which refers to the fact that participants may get used to filling out the diary and skip certain sections or even omit relevant observations or experiences that seem common for them at the time, but are uncommon for the researcher. Third, there is reactance, which refers to the possible change of experience or motivation as a result of filling out the diary and, in general, participation in a study. The diary itself can thus change or alter the participants' experience. Nevertheless, there is little evidence that states that reactance has a negative effect on the diaries' validity [5]. Finally, methods that make informants report on their own experiences always provide second-hand information because respondents interpret their own experiences [20]. This is even more problematic when talking about abstract concepts, which is often the case in video game research. However, we did not let participants theorize on abstract game mechanisms but provided them with an understandable analysis scheme.

With the limitations of diary studies in mind, we opted for this method, as for our investigation this seemed the most adequate way to start the research. Players could spend their gaming time at home, in a familiar and safe (i.e. no intervention like in an experimental lab situation) environment, and we could discover what their playing style was through the participants' notes in the diary.

Video commentary model

The video commentary model (VCM) is a rather new research method, originating from methods used in the domain of Human-Computer Interaction research [3, 17]. This method was selected because it enabled us to observe participants while playing and confront them with the game session recordings afterwards. As such, the VCM supplements the observation with the subjective experience of the participant, which is especially useful in the context of the video game world where the player is constantly being forced to make decisions. In that the VCM combines observation and conversation, it consists already of a form of triangulation.

The method consists of three important parts, namely an audiovisual recording of the user and the game (through hardware screen capture), note taking by a researcher and a semi-structured interview between the researcher and user afterwards, based on the recordings and notes made by the researcher. The Video commentary model uses retrospective think aloud (RTA), a protocol whereby users have to think out loud about what they have done. This is opposite to the concurrent think aloud (CTA) protocol, in which a person has to think out loud while performing an activity, a common use in usability tests [3]. Retrospective think aloud was used because CTA lays a higher burden on the user and interferes with the natural habit of a person [17, 25], which could have an effect on the participants flow while playing the game. Retrospective think aloud can be supported with researcher's notes, audio and/or video recordings. During the playing session, an observer takes notes and everything is recorded audiovisually. The notes and the analysis scheme are the basis for the discussion afterwards. The video of the session is played simultaneously to help the respondent in the elicitation of motivations and choices.

VCM is a rather new method and little disadvantages were found in the literature. First, there are disadvantages related to the setting. The play session takes place in an experimental lab situation, and the technicalities involved e.g. screen capture, hardware setup, and video encoding are ample. Several authors state that a lab setting is less familiar to users than their own environment and could have an influence on the data gathered [24, 30, 34,]. To minimize this effect, we used an immersive usability lab, which looked like a living room equipped with couches, decorative elements, adaptive lighting, and the necessary technology. All technical observation equipment was removed from the users' direct sight, to enhance immersion and eliminate the idea that the player was situated in a lab. The technicalities involved did not pose a threat because of the modern infrastructure and adequate support. Second, the VCM only gives a random indication of the player experience because the session is limited in duration. Finally, in order to reduce the prospect of oblivion, interviews were scheduled immediately after the observation in the lab.

Focus group interviews

Focus group interviews (FGI) can have multiple intents such as measuring attitudes, motivations, and decisions or introducing certain propositions [15, 26, 27, 35]. They are commonly used for collecting additional data when conducting quantitative research or for exploratory aims, which was the case for our study. Known advantages of focus group interviews are the depth and value that is gathered through the interview and the group dynamic that comes forth from the discussion, thereby discovering things that would not have been found in a one-on-one interview [15, 35]. Like the diary method, information from the FGI is second-hand, but the group dynamic does allow respondents to put their experiences into a larger perspective, facilitating correct information. Another advantage is the format, which is rather flexible and can be adapted to changes in the group dynamic [15, 26, 35].

Focus group interviews also have disadvantages. They do not produce quantitative data, the data is not generalizable to a larger population, dominant speakers can influence the group dynamic, and the data are often hard to analyse [15, 26, 35]. More importantly, FGI are often conducted out of context, separating the experience from the data gathered.

In this study, FGIs were mainly used to confront respondents with different playing styles, thereby encouraging respondents to reflect on their own playing style through comparison with other gamers.

The added value of triangulating methods

The rationale of this paper was to scrutinize different methods to assess playing styles and to discover which methods are suitable to triangulate within the video game Uses & Gratification tradition. The diary method allows to study players' motivations, experiences and choices in a game over a longer period of time. Moreover, the data is not influenced by an artificial setting. Therefore, this method seems to be a good starting for exploring playing styles. However, because the diary method does not allow direct observation of the interaction between the player and the game, the research design was supplemented with the VCM in a secondary phase of the study. Although the observations in the VCM are short in duration, this method provides detailed information on the interplay between game and player. Moreover, the play session itself can be coded as well. Because filling out a diary was a solitary occupation, we introduced the FGI in a final stage of the study. The FGI encourages a more dynamic situation, a group discussion and exchange of many motivations and player experiences, allowing respondents to put their experiences into a larger perspective.

In the end, it became clear that only by taking different critical perspectives into account that an overall picture can emerge: Methodological triangulation in this study provided the researcher with data from gamers in context (diary), through gameplay activities (VCM) and by interaction with other players (FGI).

PLAYERS' EVALUATION OF THE METHODS

Although the respondents' evaluation does not provide solid evidence for the merits of the methods, their perspective on the strengths and weaknesses adds invaluable information to assess their practical purpose. With regard to the interpretation of the respondents' evaluation, we note that this might have been influenced by the order in which the methods were administered (Diary -> VCM and/or FGI).

In general, respondents found the focus group interview (M=6.07; SD=0.62) the most interesting method to do, followed by the video commentary model (M=5.53; SD=0.94), and the diary method (M=4.75; SD=1.11). The diary method (M=5.66; SD=0.83) and focus group interview (M=5.57; SD=0.85) proved to be more fruitful than the video commentary model (M=4.88; SD=1.32) to gain insight in the personal playing style. In order to contextualize those figures, we provided space where the respondent could clarify the score given. We will successively discuss the respondents' evaluation of the diary method, the video commentary model and the focus group interview, and finally, present a conclusion.

Respondents found the diary the least interesting method to do, but at the same time it was the most useful method in discovering their own playing style. The most prominent reasons for disliking the diary method were related to the heavy burden of the task at hand. Several respondents even said it became a grind after a while. What is more, some respondents indicated they had a relative clear picture of their playing style after half of the sessions, and were uncomfortable writing the same things over and over again. As a result, some respondents showed a form of habituation, filling in less information as this data-gathering phase progressed. Nevertheless, almost all participants filled in at least 15 sessions, the minimum number they had to achieve. Furthermore, it should be mentioned that acquiring insight into the own playing style is dependent both on the player and the game. In line with Juul's [23] views on game goals, it can be argued that some games allow for more expressiveness than others. But because playing style is also dependent on the player, it is impossible to demarcate objectively how long one has to play a game to obtain a clear picture of the playing style. Therefore, future research might consider variable playing time. Finally, some respondents would prefer to fill in the diary on a computer, as they felt this would "save time and reduce the workload." As a matter of fact, this would probably simplify the analysis as well.

We believe, however, that these disadvantages are counterbalanced by the benefits of the diary method. The comments of the respondents provide evidence for the valuable information diaries produce. Although sometimes followed by a comment on the workload, respondents said that "by unremitted reflecting, they discovered lots of aspects of their playing style." Several respondents also found that the diary method provided them with "most information", and, in particular, "the most detailed information."

In general, respondents mostly enjoyed the focus group interviews, while the significance of the method to gain insight in the own playing style is almost on par with the diary method. None of the respondents complained about the workload or tedium of the method. On the contrary, the majority of the respondents found the focus group interview to have a surplus value: "Sharing experiences helped to gain insight and contextualize my experiences."

Table 1: Participants' responses regarding the merits of the different methods

	Did you find the diary method interesting to do?	Did the diary method helped you to gain insight in your playing style?	Did you find the video commentary model interesting to do?	Did the video commentary model helped you to gain insight in your playing style?	Did you find the focus group interview interesting to do?	Did the focus group interview helped you to gain insight in your playing style?
N	32	32	17	17	14	14
Mean	4.75	5.66	5.53	4.88	6.07	5.57
Standard deviation	1.11	0.83	0.94	1.32	0.62	0.85

Apparently, comparing strategies and finding out which emphasises the other group members laid on and within some of the six categories helped respondents reflect upon their own style of play.

The video commentary model elicited similar responses as the focus group interviews, although it was clear that the perceived usefulness differed between the respondents. While some respondents clearly stated that they "did not discover new aspects of their playing style", other respondents stated that they learned a lot "by commenting (retrospectively) on their play session" and "through the questions the researcher asked." A few respondents also found this type of analysis more intense than the diary method or focus group interview. The video commentary model allowed them to study their playing style in depth. Interestingly, participants fulfilling the part of the researcher also said they had learned something by comparing their playing style with the playing style of the respondent. This may serve as an indication of the usefulness of conducting focus group interviews.

Finally, we asked the respondents which method they found the most useful in discovering their playing style. While differences were present, the majority of the respondents found the diary the best method to discover how they played the game. This method gave them the most, and mainly detailed information. Nevertheless, most respondents indicated that the focus group interview and/or video commentary model yielded information that substantially complemented the analysis of their playing style. Whereas the video commentary model was mainly useful to explore a specific play session in-depth, the focus group interview's strength came from the possibility to come to a better understanding of the own playing style by comparison with those of others.

In sum, we contend that the most information arose from the diary, but, independent of inter-individual variations, triangulating methods will lead to more complete and rich data, resulting in better inferences.

CONCLUSION

Video games can be subsumed under the category lean forward media and thus require an active involvement of the player. Only when the player starts manipulating the video game world will the game come to existence.

Therefore, an ideal research design investigating player experiences should pay close attention to both the interactions between the player and the game and the resulting subjective experiences. In this paper we discussed different qualitative methods, relying both on observations and interviews, that are theoretically able to directly or indirectly pay attention to both these concerns. An analysis scheme, that served as a framework within all three of our research methods, was constructed to make sure respondents' attention was not only directed to their subjective experiences, but also towards their interaction with the game.

Based on a theoretical and methodological discussion, three alternative methods for analysing playing experience were included in the research design and tested with 42 participants. The diary proved to be extremely useful to explore playing styles in depth because of the large amount of detailed data it produced. The pitfall, however, is the heavy burden and the possible prospect of habituation. Confronting players with an audiovisual recording of their playing session (VCM), on the other hand, proved to be beneficial for eliciting information on players' choices and, consequently, playing styles, but the limited duration of the playing session does not allow for strong generalizations. Finally, the focus group interview excelled at explaining playing styles through discussion and group dynamic. The majority of respondents obtained most information from the diary but found the video commentary model and focus group interviews very valuable additions to the research design.

While each method has merits on its own, the research outcome suggests that a combination of different methodologies is an attractive approach, because it allows the researcher to combine strengths from different methods and to take different critical angles into

consideration. The methodological triangulation allows the researcher to study gamers in context (diary), through gameplay activities (VCM) and by interaction with other players (FGI). Moreover, this type of triangulation, combined with an analysis scheme that during interviews focuses the respondent's attention towards the interaction he has with the game, might allow player research to take into account some of the intentions of game designers as well.

A few important limitations exist in this study. First, the context of the course work could have had an influence on players' motivations. An attempt was made to anticipate this by letting students play one of their favorite games or at least a game that belonged to their favorite video game genre, thereby trying to eliminate the feeling gaming was obligatory. This succeeded fairly well: only a couple of students reported boredom related to the game they had played. Second, the participants of the research project fulfilled several roles: player, student, respondent, and some even researcher (VCM). While this is disadvantageous for the pure technical evaluation of the research methods, it allowed the participants to comprehensively analyze how they played the game. As such, we believe this has led to more in-depth and rich data. Several students fulfilling the role of the researcher in the VCM, for instance, indicated they learned a lot about their own playing styles by listening to the respondent talk about his.

As a way of summarizing, table 2 is provided to compare the methods at a glance, presenting an overview of the advantages and disadvantages of each method based upon our own theorizing and the respondents' evaluation of the methods.

Table 2: Summary of findings

	Diary	**Video commentary model**	**Focus group interview**
Short description	Fill in diary concerning game (6 aspects) during 4 weeks. Stop game session approx. after 45 min. to take notes.	Play game in lab setting (immersive living room). Based on researcher's notes and screen capturing of video game session, player talks about playing style	Interview with all the players that played same game during the study. Main focus was on 6 aspects of a videogame
Advantages	• Very interesting to discover playing style • Much/detailed information • Comprehensive data to analyze • Natural setting	• Interactive & interesting way to discover playing style • In-depth look at own playing style • New insights through interview based on recordings • Emphasis on interaction between game and player	• Many players found it an interesting method to do • Players learned lot from others through discussing their playing style (group dynamic) • Comparison with other playing styles is possible • Less time consuming for participants • Detailed information in a short time span
Disadvantages	• Sometimes burden for player when discovering much information about playing style • Habituation • Time consuming • Comprehensive data to analyse	• Need for an immersive lab • Some players did not discover new aspects of their playing style •Need for appropriate hard- & software • Players have to feel at home (bring controller, personal configuration)	• Workload: lengthy preparation, scheduling interviews with different participants • Analysis is elaborate and sometimes difficult • Possibility of bias by dominant speakers

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