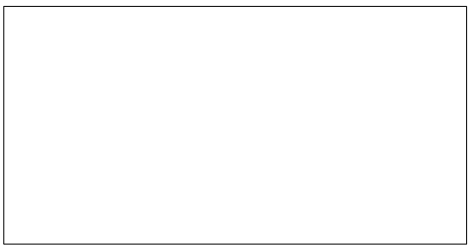

Developing Interactive Elicitation: Social Desirability Bias and Capturing Play

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Abstract

Drawing on research from a mixed-methods project on gaming (n=15) we argue for a qualitative methodological approach called 'interactive elicitation', a form of data collection that combines elements of photo elicitation, interviewing and vignettes. After situating our broader research project exploring young people's experiences of violent open-world video games, we outline the process of conducting interactive elicitation, arguing for a mixed-methods approach where participants are observed and interviewed both during and immediately after interacting with particular cultural artefacts, in this case the game GTA V. We reflect on the initial design of the research methodology, the problematic aspects of conducting the research – focusing on social desirability bias – before proffering adaptations to our approach in relation to complimentary work in the field of Game Studies. Ultimately we argue for immediacy in relation to research on cultural experiences and the importance of social desirability as an asset in framing interaction, both of which have implications for sociological and interdisciplinary research more widely.

Keywords Interactive elicitation, social desirability bias, interviewing, video games, GTA V

Introduction

In this paper we unpack, problematize and refine a qualitative methodological approach to exploring participants' experiences of interacting with cultural artefacts, in this case using video games as a stimulus. We will present 'interactive elicitation' as a method for researchers to use when studying player-game interaction and will go on to suggest that social desirability bias can be seen as an asset in relation to this.

Our central contention is bipartite: we will argue that, as researchers, it is crucial to actively experience coaction between participants and artefacts to fully understand embodied forms of interaction, even if this involves the sorts of problems around social desirability bias that we trace in this paper; following this, the *immediacy* of data collection is vital in capturing the nature of human/non-human interactivity, so as to develop a more rounded and less recollection-based understanding of specific types of cultural

entanglement. We are terming our approach to these factors 'interactive elicitation', which should not be confused with the older psychological operationalization of Kelly's personal construct theory (see Kelly, 1970; Gaines & Shaw, 1980) or mathematical theories of computer programming from the early 1980s (Kadane et al., 1980).

The intention of this paper is threefold: firstly, to explain the context of the empirical research that led to the development of interactive elicitation with regards to video gamers and their experiences of playing violent video games [for this project we used *Grand Theft Auto V* (North, 2013)] in relation to precursor social-scientific studies of gamers; secondly, to use our data to reflect on the problematic aspects of our method in relation to social desirability bias in particular and, thirdly, to posit potential refinements and applications of this approach drawing on interdisciplinary research in Games Studies.

It is worth situating the development of our methodological approach in relation to the research we are presently engaged in. In early 2018, as was widely reported in various mainstream media outlets (Parkin, 2018; Ducharme, 2018), Donald Trump reinvigorated a debate about the supposed causal link between violent video games and real-world violence, his comments made in relation to the Douglas Stoneman High School shooting in which 17 people were killed by former student Nikolas Cruz (Laughland, Luscombe & Yuhas, 2018); arguments about this relationship are not new – they can be found in predominantly psychologically-based academic work (see, for example, Anderson & Bushman, 2001; Peng, Liu & Mou, 2008; Weber, Behr & Tamborini, 2009) as well as in the mainstream media (Ward, 2001 on the Columbine Massacre for instance) – but this is a highly contentious area of study, particularly when a significant proportion of the research is questioned in terms of its scientific validity. A good example of this is Ferguson and Dyck's (2012) critique of the use of the General Aggression Model – the basis for Anderson and Dill's (2000) oft-cited work on virtual-world/real-world violence – and Schott's longitudinal study of young people's articulation of violence is another notable challenge, particularly as he notes how social science and the study of video games 'rarely…encounter each other head on' (2008, p. 2).

Our interest stemmed from the re-emergence of these arguments, which in recent years have been developed through a criminological, rather than psychological, lens. A number of scholars have explained that there is a case to be made about how violence is framed, presented and interacted with in relation to contemporary cultures of new media

(Yar, 2012), masculinity (Salter & Tomsen, 2011) and - for our specific interest in video game violence – spaces where asociality can be practiced (Atkinson & Rodgers, 2016). Atkinson and Rodgers are of particular interest, as their excavations are not to do with violence in a causal sense, but the idea that video games offer particular types of space in which violent fantasies can be explored and experienced; they call these spaces 'murder boxes', and building on Presdee's (2003) notion of the 'carnival of crime', they describe violent video games as 'cultural zones of exception, in which we become temporarily suspended from normative sociality and thus enabling permission to engage in otherwise transgressive experience' (Atkinson & Rodgers, 2016, p. 1296). Atkinson and Rodgers' work is primarily theoretical, combining Elias' 'civilizing process' (2000), Fromm's necrophilogy (1973) and Freud's interest in the seductive capital of aggression in cultural life (1973).

To situate our small study in relation to these wider issues, for the last twenty or so years criminological literature has seen a dominant school of thought develop around the idea that violent experiences, albeit simulated ones, have a damaging impact at micro and macro levels, both social and psychic (Atkinson & Rodgers, 2016, provides a neat summary of this). Our intention as investigators whose work clusters around popular culture, death and violence, was to test this long-standing theoretical hypothesis in an empirical setting. Our initial findings have demonstrated that gamers are as pro-social as they are violent (Denham & Spokes, 2018), but further research is required. To that end, we argue here that a reproducible methodological approach is necessary to help in understanding simulated violence and issues in interactive entertainment more broadly: this paper reflects the methodological approach we designed for the empirical work introduced above.

Process

Having outlined the initial remit of the research project, we will now consider social scientific studies of video game violence looking specifically at the Grand Theft Auto franchise before explaining the process of conducting interactive elicitation. It is worth noting that, as this discussion is based on an initial test run, our approach is necessarily flexible and should be considered quasi-experimental, something we will reflect on in more detail when refining our method at the end of this paper.

Our development of interactive elicitation was borne partially out of necessity: as previously outlined, psychological research into the relationship between violence-based gaming and real-world violence had a wealth of empirical data to draw on, but this research – regardless of scientific merit – lacked a sociological or criminological focus. However, it would be disingenuous to state that there is a dearth of research on violent gaming in the social sciences. Atkinson and Willis (2007) have previously explored the *Grand Theft Auto* series using the third iteration of the franchise to consider how participants (n=14) navigated violent urban spaces, and DeVane and Squire (2008) detailed the relationship between race and violence in *Grand Theft Auto: San Andreas*. This latter study is of particular interest, as the authors are keen to understand how 'youths actually play…and what meanings they make from it' (ibid: 264). Their methodological apparatus – similar to Atkinson and Willis - highlights one of the reasons for our development of interactive elicitation, in that it involved post-hoc focus groups. This seemed to us a problematic approach in that it relies on *recollections* of interaction. Instead, we wanted to move towards a method that captures the immediacy of gameplay, but in an empirically rigorous and reproducible way, akin to some of the work carried out in Game Studies (we will discuss this in more detail later).

Turning now to the specific structure of our method, our sample - as with previous studies looking at violence in relation to the *Grand Theft Auto* series (Atkinson & Willis, 2007; DeVane & Squire, 2008) - involved young people as participants, all of whom were in the 18-30 age bracket (n=15). Both Atkinson and Willis and DeVane and Squire's recruited similar numbers for their studies (n=14 and n=12 respectively). Schott's study (2008, p. 3) obtained a larger sample (61 in total), but with a younger age bracket (14-18 year olds). Our gender breakdown was nine females and six males, in contrast to the 53/8 split in Schott and the 13/1 split in Atkinson and Willis' study (DeVane and Squire offer no information on their gender dynamics). We considered gender representation to be particularly important given earlier work on the role of masculinity and misogyny in gaming (Jenkins, 1998; Fox & Tang, 2014) as well as specific depictions of women in the *Grand Theft Auto* series (Gabbiadini et al., 2017), though it is our intention to explore this in detail in a separate paper.

Data collection ran from January to late March of 2018, in a soundproofed space specifically set up for data collection; for want of a better a term, a gaming lab with space

for the participant, two researchers and the necessary gaming equipment, television and recording devices. Following an initial call to would-be participants via an online announcement - in which we asked for gamers who had experience playing *Grand Theft Auto V* - we recruited 20 participants in total using an adapted version of opportunity sampling (see Jupp, 2006). Of these 20, 5 were unable to attend the sessions leaving us with a total of 15. The 15 participants were a mixture of undergraduate students and staff members from the University. Of those undergraduate students who participated, some were taught by the researchers, and the potential power dynamics of this are in part what has led us to writing this paper on social desirability.

To maximize reproducibility, each session was designed to run to the same parameters: the sessions would be a maximum of one and a half hours in length with the first 30 minutes enabling participants to refamiliarize themselves with the game and the controls (we used a PlayStation 4, but having not stipulated formats in the initial call for participants, we included time for those who had previously used an Xbox or PC to get used to the new controls). This was followed by 30 minutes of gameplay, in which field notes were taken alongside a thematic interview asking participants about the experiences of gaming in the past as well as commenting on their activities during play. Participants were all started in the same location – playing as the character 'Franklin' stood outside of the house of the second playable character 'Michael'. Participants were also given identical instructions as follows: 'We've started you here in front of Michael's house. Behind you, there's a mission. But what we really want you to do is just play the game however you would normally play it'.

This was followed by 30 minutes of semi-structured interviewing. In thirteen interviews, two interviewers were present and this aided in the process of making the interviews more personable as well as mitigating some of the power-related dynamics of 1-to-1 interviewing. Not including the 30 minutes of practice time, the recorded portion of the interviews ranged from 51:02 to 1:09:04: the gameplay segments were timed at exactly 30 minutes, so this variation is entirely down to the length of discussion during the semi-structured interviews. The semi-structured interviews were split into 3 thematic segments focusing on 'participant agency', 'characterization' and 'narrative'. Aside from the necessary information for informed consent, participants were not given an indication of the focus of session – our primary concern being that were we to outline the project as focusing on

violence this would potentially skew behaviour and responses – and interview questions were kept purposefully open ended in the semi-structured interviews ('Was it fun'; 'What are the rules'); the formalized questions remained identical across all interviews, but follow ups and prompts were also used (Ritchie et al., 2013) in response to particular individual events that occurred during gameplay.

Situating 'interactive elicitation'

Before discussing how interactive elicitation might be developed further, it is important to draw on aspects of the data we have collected to highlight how our approach is positioned with regards to broader literature, as well as identifying the less-than-positive features of this initial piece of research so as to refine our method. Interactive elicitation in its present form is a beneficial way of gathering data about participant engagement with cultural artefacts because of its ability to capture rich data from multiple angles across the duration of the session: this includes both thematic and semi-structured interview responses and participant observation. It combines the immediacy we saw as lacking in earlier research on this topic with a standardized approach that does not diminish the agency of participants by being too rigid. Of course, the responses of participants are induced rather than spontaneous, but they relate directly to the video game play-through as a stimulus for engagement and interaction. With regards to established methodological practices in social sciences, there are two primary ways our method can be understood: as an adapted form of photo elicitation or as vignette-based research.

In terms of photo elicitation, Harper (2002, p. 13) describes this approach simply as 'inserting a photograph into a research interview', with the visual aspect part of a spectrum running from researcher-defined objects (ibid) to those collected by participants themselves (Croghan et al., 2008). This spectrum offers differing benefits in terms of building rapport, sharing experiences and providing a means of accessing different perspectives that text-only data collection may miss (Richard & Lahman, 2015). Clearly, there are differences between photo and interactive elicitation, the crucial one being the interactive element. Participants are asked to engage in a specific task, reflecting on gameplay during a play-through and then again afterwards. The positive aspect of this for us is capturing the immediacy of this embodied experience: this process is necessarily different to reacting to and sharing understandings of visual images in that embodiment. Now while we accept that there is

clearly a visual aspect to our designed task, this type of active kinaesthetic engagement distances interactive elicitation from photo elicitation. That said, there are still some spaces for overlap: for example, Bell, Kampe and Taylor's (2015) work on hypermasculinity uses recorded segments of gameplay by participants as stimulus for later reflection, so integrating video into future work has demonstrable potential.

Vignette research, as Hughes (1998 p. 381; see also Huby, 2012) outlines, explores participants subjective belief systems through the use of

> '…stories about individuals, situations and structures which can make reference to important points in the study of perceptions, beliefs and attitudes [where] participants are typically asked to respond to these stories with what they would do in a particular situation or how they think a third person would respond'.

There are clear similarities here to the approach we operationalized with our gameplay section, asking participants to play as they would normally play within a given framework. Again, the difference between interactive elicitation and vignettes would appear to be related to type and embodied engagement. Where vignettes have traditionally been text or photo-based, we require participants to actively 'play' with the vignette. This is important because although we offered the stimulus, our data shows a real diversity in terms of those who, for example, took on specific missions (n=9) or those who went on a killing spree (n=3). The ways in which our adapted vignette is taken up, reconfigured or challenged by our participants – within the parameters outlined earlier – shows the power of an interactive element in widening the scope for exploring cultural engagement.

Related to our sample, there is extensive research suggesting that vignettes are especially applicable with young participants, in particular Al Sadi and Basit's (2017) recent research on cultural tolerance and Kandemir and Budd's (2018) exploration of students experiences of cultural values at University (useful for us as on this occasion our sample is drawn from a University population of students and staff). Furthermore, Barter and Renolds (2000) argue that vignettes are an underused methodological tool for eliciting responses that other forms of data collection are less successful at: better yet, they see the true value of vignettes as a multi-method approach, and our combination of an interactive vignette,

with thematic and semi-structured interviews, is more likely to generate rounded, thick descriptions and justifications of participant actions from multiple angles than from interviewing alone, as has been the case in the past.

One criticism of vignette research, as Barter and Renolds also articulate (2000), is how artificial the technique is, in that traditionally it requires participants to focus on fabricated scenarios. They say that 'integral to social life are the continual interactions between individuals and their environment; as vignettes are unable to duplicate this complexity, findings derived from this method cannot be generalised to any aspect of people's social lives' (ibid, p. 312). However, a positive feature of interactive vignettes is the ability to mitigate this, as the vignette is a form of play not outside of everyday experience, though the circumstances – a structured play session – differ slightly in that players are not *routinely observed* in their gameplay (unless they are using a platform such as Twitch): this brings us neatly to the primary concern we have identified in our initial application of this method of data collection, namely social desirability bias, and we will draw extensively on our data to underscore its impact on our methodologies.

Social Desirability Bias

Writing about inaccuracies in qualitative data, Becker reminds us that 'we should never confuse interviews with "being there", seeing for yourself what happens and recording it soon afterward' (2017, p. 188). In these comments, Becker is recognising the differing, but not necessarily oppositional epistemologies of interviews and observation – interactive elicitation is nestled somewhere in the middle, watching people do things and asking them about it both during and afterwards. Interviews, according to Becker, are 'subject to many of the problems of more structured forms of asking people to tell you what happened' (ibid; see also Fink, 2000). In other words, whilst interviews might be seen as a more intimate and quality driven form of data collection than, say, a survey, a researcher is still essentially asking the participant to self-report from recollection something that may have happened to them or that they may have done themselves; as previously discussed, this is has been the case in some social science research looking at this type of gaming (Atkinson & Willis, 2007; DeVane & Squire, 2008).

Interactive elicitation, and its immediacy, could be seen to subvert some of the biases that are introduced when asking participants to remember something from their past, but it is nonetheless exposed to the same issues around self-reporting information. Additionally, as overt-observation is introduced to the traditional semi-structured interview technique, we were able to witness further biases that go beyond problems of self-reporting, and extend into the performance of actions that participants deemed to be favourable to the researcher – typically termed 'social desirability bias' (Nederhof, 1985) - where participants alter their behaviour based on a perception of what is socially desirable in a given situation.

Working through our data, there was no explicit mention of social desirability bias or its effects in 4 of the 15 interviews - **P7; P10; P11** and **P14** – whilst **P4, P5** and **P9** all contradicted the effects of social desirability with sentiments that their behaviour was not altered by the presence of the researcher; the remaining 8 supported it. The effects of being watched could be broken down into 3 themes: the project design/presence of the researchers and their behaviour altering impact on in-game skill; violence; and pathway.

Participants were all told that we were not researching their ability ['this is not a skills test'], but many still felt the need to clarify that they could have performed better were we not watching. **P15** told us that were they on their own, the whole process would have been a lot easier - : **'**If I was on my own I would have found it [the mission] easier but you're quite under pressure when people are watching so I think you're a bit shaky.' In contrast to this, **P2** detailed how their performance was less hindered by the presence of the researcher, stating that **'**if you guys weren't here I don't think I would have done much better, if any better.'

As we were not measuring ability, this was not deemed to be an issue initially. However, **P12** reported that due to their anxiety about performance and skill whilst being watched, they altered their pathway through the game as a result:

> **P12** I don't like doing missions because I know that they're harder and I will die if I'm not really well practised on it [Do you think maybe that was partially created by us, the fact that we were watching you play?] Probably, yeah.

These biases have to be accounted for as a necessary drawback of any form of overt observation and have been acknowledged in our dataset. Particularly, where participants reported altering their pathway through the game due to our presence as researchers – it was not related to skill, but to violence. Both **P15** and **P14** responded to 2 of the regular points on our semi-structured interview schedule by likening video game violence to psychopathy or sociopathy:

> **P14** [What was fun?] I don't know. I don't want to sound a sociopath but I just liked running people over, you know.

> **P15** [Why did you choose to do the mission?] I suppose it just gave me like an objective. Because otherwise you just walk around, especially when people are watching […] I don't want to look like a psychopath so I thought I'd just play it safe. [Did you not go on a killing rampage because we were watching?] Yeah.

P14 acknowledged the pressure to behave in a certain way due to being watched, despite not letting it stop her from purposefully running over and killing multiple pedestrians. On the other hand, **P15**, without actually referencing any potential acts of violence, still alluded to the fact that our presence made them avoid pedestrians. When we asked them to clarify if this was in reference to killing, they confirmed as much. **P1** expressed comparable sentiments to both **P14** and **P15** of not wanting to be seen as a violent character especially in front of people whose positive appraisal they may have courted (student/lecturer relationship. By this point, as responsible and reflexive researchers, we had adapted our schedule slightly to ask if our presence had had any impact – **P9** was the only participant to respond negatively:

> **P9** I like it when you go round getting like five stars and you see how long you can survive for. That's pretty fun. [How come you avoided doing that this time? Was it because I was watching you playing?] Oh, no, I just didn't really get the chance. I haven't really got enough guns either.

Instead, **P9** reminds us that the 30 minute gameplay time-limit could also be a biasing factor – they were not concerned about being watched, just that they did not have the time to conduct violence and transgression in the way that they would have liked. **P6** and **P2** both corroborated the point made by **P9. P6** chose the challenge of seeing how far through the game they could get in the allotted time, explaining that 'I was just kind of wondering to myself I wonder how far I can get in about, you know, 15 minutes/half an hour. [Because you were being watched?] Almost definitely. I think it's low key trying to show off a little bit', whilst **P2** attributed quitting the mission half-way through to being watched and not wanting their timeslot to be filled only with failed attempts. Conversely, the time limit influenced **P3** in the opposite way, encouraging them to stick with the missions because 30 minutes of free-play might have been boring; they stated 'I think 30 minutes of just running around would have been a bit ridiculous'.

On tackling these biases, it is our suggestion that further research with a slightly adapted approach could mitigate or incorporate some of these concerns, despite many being established and ingrained drawbacks of these forms of qualitative research. In the first instance, participants reported vastly different lengths of time for normal gameplay, ranging from **P7** and **P5** who typically played for 30 minutes, right up to **P8** who played for eight hours in a sitting, or even **P9** who reported playing 'all day' on occasion. Provision for participants to perform the elicitation half of the interview, perhaps in their own time, to a length that is more reflective of their usual gameplay, could help mitigate these vicissitudes in pathway – and may go some way to reducing skills/performance anxiety as well; indeed this is partially the approach taken by Ribbens and Malliet (2015) where gamers are observed in gameplay but only after they have recorded their gaming habits in diary form (this will be discussed further in the next section).

Secondly, our participants were invested in us maintaining a positive opinion of them as their lecturers – so a sample from outside of our own institution would need to be considered in any further research. In closing this section it is also worth noting that whilst there are potentially other difficulties associated with our approach, the issue of social desirability bias was the most notable in the data. It is important then to consider how interdisciplinary research, particularly from Games Studies given our focus, might help us to refine our method and consider the broader ramification of social desirability.

Game Studies and interactive elicitation

Thus far, we have considered our processes for data collection in relation to established methodological practices around photo elicitation, the use of vignettes and semi-structured interviewing. However, it is also important to think through how our approach maps on to work in cognate disciplines and how these methodologies might help us to develop our own approach and mollify the issue of social desirability bias.

The premise on which interactive elicitation operates – that participants' reflections need to be proximal to the experience of play – echoes some of Giddings' work on the ethnography of video game play, which itself echoes and adapts Goffman's dramaturgical approach (1959). More recently, Bird (2013, p. 191) tells us in relation to media engagement that 'only ethnography can begin to answer questions about what people *really* do with media, rather than what we imagine they *might* do, or what close readings of texts *assume* they might do'. What Giddings means in his development of microethnography is the 'nonscientific, improvised, opportunistic approach to recording, describing, and analyzing brief moments of everyday technocultural activity' (2008, p. 149). Whilst of course we are interested in the spontaneous articulations of our participants, without methodological specificity we are at risk of failing to provide workable data, particularly if the idea is to respond to scientific work positing causality between virtual and real-world violence. However, Giddings' later notion of the 'event' is more useful in pushing us towards specific objects of study; he states that to understand '[…] video game play then is not [as] a media-cultural practice, a human subject, or a set of technologies, but rather the event in which the three come together (with the human and nonhuman researchers) (ibid: 149)'. As such, interactive elicitation is an 'event' designed by the researcher in which participants act, react and interact with researchers and technologies in co-producing responses and assembling understandings of particular forms of media culture.

Within this, the game itself is also crucial as a reciprocal catalyst of action: the interconnections between experience, participants and data are mediated and constituted by the cultural artefact, in this present case the game *Grand Theft Auto V*. This connects with Giddings and Kennedy's attestation elsewhere that 'gameplay cannot be understood without an understanding of the agency of games as technologies' (2008, p. 3) alongside the agency of players. As such, studies which do not respond to the immediacy of game play

experience are missing vital aspects of the meaning-making processes associated with interactivity. For example, would the tension and complications of social desirability between researcher and participant be as fully captured in recollective interviewing?

Simply put, interactive elicitation at an abstract level is a staged 'event', one where the outcome can never fully be known to the researcher, one that is made and remade at the conjunction of different forms of human and non-human agency and embodiment (choices made, controls worked, speech acts offered, interpretations garnered and so forth). So how do we take this forward in practical terms, bearing in mind the aforementioned issues of bias?

Given the context of our project, it seems prudent to explore research areas that overlap our own, and there are a number of contemporaneous studies related to video games that complement aspects of what we have outlined in this paper; 3 will be unpacked here with regards to integrating our response to social desirability bias (Shaw, 2013; Bell, Taylor & Kampe, 2015; Ribbens & Malliet, 2015).

Shaw, in her study of gaming and identification, adapts and builds on Schott and Horrell's (2000) 'gameplay interview', talking through gamers' play in the homes of participants. From the off, this personalized situating of data collection clearly has the potential to break down the barriers identified earlier in relation to the structured conditions of interviewing, in terms of demystifying the process, assisting in rapport-building and making the experience less test-like: in turn, this would help with reassuring participants about their role and expectations.

Shaw describes her approach as a thematic and observational form of data collection, starting with general questions about media consumption, before asking participants to play a game of their choosing; this was followed by questions about whether or not participants identified with particular characters they played as (2013, p. 350). Shaw's work clearly captures the relational aspects of player interaction, but there are some issues with this around reproducibility: as the participants choose their own games, experiences cannot necessarily be mapped or compared directly. In the context of Shaw's study on identity and avatars, this is perhaps not a problem, but when the area of study is related to specific types of content – in our case, violence – there is perhaps an imbalance in favour of human agency over the non-human agency of the game. Nonetheless, the location where

data is collected appears to have an impact on whether or not participants are comfortable and engaged, so amendments to our initial method could be made based on this.

Bell, Taylor and Kampe (2015), in their study of hypermasculinity and *The Walking Dead* game, build on microethnographic work to combine a number of elements that could assist in our refinement of interactive elicitation. Their gameplay sessions with participants involved a higher level of reproducibility, whereby participants played through 3 sessions of different iterations of *The Walking Dead* franchise (the game is released episodically by developer *Telltale Games*). The first session involved general discussions about gaming before a recorded play-through (similar to what we did); the second repeated this with a follow-up contact in which – via email – participants reflected on what they found interesting or otherwise about the session and the third session involved the creation of a highlight reel combining filmed sections of the first and second sessions for participants to respond to.

In relation to interactive elicitation and social desirability bias, there are some notable benefits to a multi-session approach. Firstly, participants' concerns over performance are potentially assuaged, as there are multiple opportunities to 'do well', which, as discussed, was considered a barrier by some in our study: social desirability bias is mitigated over a longer period of time. Secondly, Bell, Taylor and Kampe (2015) had a variety of opportunities to explore the gameplay and actions of participants and offered a selection of follow-up discussions beyond the immediacy of the one-off session we employed on this occasion meaning there were increased opportunities to explore the relations between participants and games. Thirdly, participants played in pairs, with the researchers keen to make 'no efforts to obscure participants from each other, so they were free to watch or talk to each other' (p. 1); going forward, this social aspect of play – or rather the interpretive work that is undertaken during and after play as a socially-mediated activity – is something worth teasing out more. In the context of our initial study, individual responses to violence are of course interesting and valid, but the social element would potentially yield other forms of reflective data as well as adding an additional dimension to social desirability bias: factoring this in, would participants awareness of each other as part of the elicitation process impact their play, their responses, their interpretations?

However, our current approach, with the semi-structured interview element, is also problematized across multiple sessions as the propensity towards complexity and

divergence would be heightened. Although we are of course aiming to capture some of the complicated nature of video game play, the more gameplay that is captured the more likely a reproducible interview scenario or a practical schedule becomes unlikely. The use of the highlight reel – the third stage – could help here in terms of facilitating a follow-up to the more formalized approach we have taken, offering an additional reflective space, thereby combining the sort of work Atkinson and Willis (2007) and DeVane and Squire (2008) have done with our own study.

Finally, Ribbens and Malliet (2015) offer some useful and distinct methodological approaches which overlap with what we have done; their study was interested in understanding how young men (n=26) engage with violence in different games, delineated as 'mission based' and 'reaction versus strategic' games. Participants played a selection of six different games, two of which were earlier titles in the *Grand Theft Auto* franchise (namely *Grand Theft Auto IV* and *San Andreas*). The particulars of their findings are, in this instance, less important than their approach which again moved through three stages. Following a first stage in which participants were familiarized with the processes of data collection, the second stage involved participants keeping a gameplay diary whilst they played over a much longer period of time than our study – 12 hours in total – with entries made every 45 minutes (ibid, p. 1632). They were given no instructions as to what was worthy of recording beyond the initial formatted boxes for 'player-game' interactions; this second stage represents a more longitudinal version of our thematic interviewing stage, with the social elements of researcher/participant removed. There is the potential here then to again mitigate social desirability bias in that participants would be, as was the case in Shaw's study, in their own home environment, as well as capturing longitudinal reflections from participants as gameplay takes place (though there is the option for participants to doctor the diary also, which our present observation style obviates).

The third stage introduced both video commentary and focus groups. Video commentary involved participants talking through their experiences whilst they played in a controlled environment (similar to our set up), though this was problematic for access reasons in this piece of work. The focus group aspect is of interest as this recasts the social element of play that was perhaps not fully captured in this initial iteration of interactive elicitation. As with Bell, Taylor and Kampe's (2015) work with pairs of players, introducing a subsequent focus group dynamic may develop how participants share, respond and

understand their actions, transforming social desirability bias and making it an active factor in the process.

From the 3 case studies of research in Game Studies outlined above, it is clear that their approaches offer a variety of ways of refining interactive elicitation and recasting social desirability, with particular regard for teasing out the social relationships between participant gamers and the practical use of different sessions of play to extend the opportunities for participant/researcher data production and gathering.

Discussion: developing interactive elicitation

As part of a broader investigation into the complicated relationship between video games, players and simulated violence, we developed interactive elicitation as a method to capture elements of play and explore participant's interactions as close to play as possible. To this end, we have outlined our approach and how it built upon, and differed from, earlier studies looking at violence in video games (see Atkinson & Willis, 2007; DeVane & Squire, 2008). Speaking more broadly, we then considered other methodological approaches to qualitative data collection such as photo elicitation and vignette research. The challenge here is balancing the rich reflexive discussions of participants and our own observations with the problems associated with 'playing up' during data collection. As we suggested in relation to Giddings (2008) work, we remain keen to capture and reflect the relations and contestations between human and non-human actors, but there is a fine line between respecting the indeterminacy of the 'event' – in this case, the act of interactive elicitation – and imposing too much methodological rigidity.

Furthermore, we are keen to avoid interactive elicitation, in combining human and non-human actors, becoming a version of actor-network theory, as has been the case previously (Giddings & Kennedy 2008; Taylor 2011). At present then, we are working more towards accentuating participant activity as mediated by technology and combining our more flexible thematic interviews and observations with a fixed semi-structured interview so as to capture in-betweenness more effectively. Crucially we also identified in our data issues around social desirability bias; this involved the relationship between researcher and participant, the nature and content of the game, and the performative aspects of play in a relatively standardized environment.

As found in the work of Shaw (2013), Bell, Taylor and Kampe (2015) and Ribben and Malliet (2015) there are a number of ways of mitigating the issue. With Shaw (2013) we see the importance of environment in fostering trust and rapport between researchers and participants. A lab-based scenario, whilst more straightforward for reproducibility, still has the potential to undermine this relationship or at the very least suggests a hierarchical relationship that may impact participants in terms of their performativity. From Bell, Taylor and Kampe (2015), the use of multiple play-throughs cultivated a richer longitudinal data set whilst simultaneously tackling the social aspect of play with the inclusion of multiple participants at once; similar to our work, their sample population was relatively small, so scaling this up in larger projects will have practical implications, but at the same time operationalizing social desirability through observed performance tackles these concerns head on, and makes bias a *feature* rather than a problematic by-product of the data.

Ribben and Malliet (2015), like Shaw, accentuated the agency of their participants through the use of a gaming diary; this transforms desirability into a textual articulation rather than an immediate observed performance. Bias may still be present, but manifest in different ways. Again, this gives weight to participant perspectives, enabling those involved in the study to codify and exemplify meaning-making practices on their own terms, whilst still being methodologically rigorous through the development of the diary in a structural sense, and through the follow-up play-through sessions.

Ultimately, we have presented interactive elicitation as a method for people to use when studying player-game interaction - the empirical findings can be explored further elsewhere (see Denham & Spokes, 2018) - and have suggested that social desirability bias can be seen as an asset; our refinement of interactive elicitation, based on these insights, situates social desirability as unavoidable in the context of our present research: the nature of observing and articulating interactions which represent violent, asocial conduct will necessarily involve a level of participant-led moderation of behaviour. The real issue is how can we properly reflect and represent social desirability as part of the process if it is unavoidable? Going forward, were this model to be used for other topic areas of interactivity, the context of the 'event' (to use Giddings' term) would need to be given careful consideration so the more structured elements of data collection are formatted accordingly to ensure social desirability is identified and articulated during the data collection, and not identified after the fact: if we are honest, we had limited success in

achieving that on this occasion – though we did modify elements of our approach as discussed earlier. These issues have led to the refinement of our research design to incorporate social desirability as a key element of interaction, and our contribution is to suggest that the role bias has to play in this type of qualitative research can offer insights for the performativity of engagement, particularly when conducted over a longer period of time with a number of different social actors.

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