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The Informal Learning of History with Digital Games

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Institute of Educational Technology

The Open University

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Abstract

Digital games that represent history, i.e. 'historical games', are a fundamental way that players can engage with the past. Their focus on historical representations, narratives and processes means educators are using them in formal educational practice. Surprisingly, there is little empirical research on the educational outcomes from the use of historical games in formal contexts, and the specific ways they can increase a learner's historical awareness and understanding. Existing research on historical game engagements outside of these formal contexts is even scarcer. There has been very little study of whether, what, and how players informally learn through historical games, and their informal learning activities in relation to them.

This thesis presents two empirical studies that begin to address this imbalance, exploring player perceptions of historical games as a medium for informal historical learning. The first, an online survey completed by 621 respondents, compared audience and player perceptions of fictive historical film, television series, and games. This situated historical games within the wider media landscape of fictional representations of the past in visual culture, and how they are comparably perceived as media for informal historical learning. The second, more extensive study adopted an ethnographic approach, narrowing the focus of the first by exploring players' informal learning experiences with historical games that specifically represent classical antiquity. It identified the historical knowledge outcomes particularly associated with historical game use, also examining player's learning practices with the games that move beyond the game experience (e.g. information seeking, modding, after-action report writing, forum use, and LetsPlay videos).

This research thus offers a greater and more comprehensive understanding of informal learning with, and in relation to historical games, highlighting the interplay between these various informal engagements and activities, and how these relationships can influence, determine, or affect player understandings of both the past, and the present.

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This thesis is dedicated to him.

For you, Dad

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Chapter 1. Introduction

The novelist now usurps the chair of the educator, the pulpit of the preacher, the columns of the journalist. Yet his original purpose of entertaining may have been his highest purpose. (Wylie, 1930, n.p)

The snob in us likes to believe that it is always books that spin off movies. Yet in this case, it's the movies -- most recently "Gladiator" two years ago -- that have created the interest in the ancients. (Arnold, 2002, para. 2)

Banksy has been erecting street art in New York over the past fortnight, and he has now turned to one of Hollywood's most popular films for inspiration. The elusive artist's latest work depicts a man beginning to scrub away the quote from the film Gladiator: "What we do in life echoes in eternity". (Wynick, 2013, para. 2)

In May 2000, Ridley Scott's film *Gladiator* was released to much critical acclaim. The same year, a 15-year-old girl from a small town in northern England watched the film wide-eyed and spellbound. Later that year, when the time came to decide her A-levels at her local college, that same girl, still thinking of that glimpse of the ancient past she felt she had encountered, chose to study classical civilizations as one of her subjects. Two years later she went on to read Classical Studies at University, even writing her Bachelors dissertation on the topic of *Gladiator* (2000). Although a number of years (and further study) has passed since then, she now finds herself thinking once more about the film as she types these words.

I am a living example of the influence that popular historical representations can have on the lives of those who engage with them. Of course, my own case is somewhat unusual. It is rare that the impact of the stories that we encounter in our lives are as easily tracked as when they lead us on a path of study with quantifiable milestones. Yet on a smaller scale, this story is perhaps not so unusual. How many of us have been inspired to turn to Wikipedia to find out the ‘truth’ behind the historical representations we encounter? How many are driven to find out more about a period we first (or perhaps most excitingly) encounter on a screen or in the pages of a novel? Such examples are far from unusual and yet we know surprisingly little about how, as in my own case, the popular daily encounters we have with the past influence our present engagements with the world.

This thesis is an attempt to begin to tease out some of these relationships. As such, this thesis, in essence, is not really about what historical games are or are not. Instead this is a thesis about what people *think* about these games and *how they use them*. Therefore, the object of study in this research is people: their perceptions, opinions and interpretations of the histories represented in digital games, rather than the games themselves. To investigate historical games in such a way is to think about how they function in popular culture and, more specifically, how this work sustains, negotiates and structures the impact of history not only on popular perceptions of media, but also on contemporary, everyday life.

Gladiator (2000) was the first major ‘sword and sandals’ epic film to be released internationally in more than 30 years. Nominated for twelve Oscars and awarded five of them (including Best Picture) and enjoying immense popularity with viewers, critics and award panels, the film was a huge success, leading some to argue that it reflects “something that society desires or needs to hear” (Cyrino, 2004, p. 125). Such was *Gladiator’s* seeming success in capturing the popular imagination that it was later credited with rekindling popular interest in the ancient world (Arnold, 2002). The “‘Gladiator Effect’” (Arnold, 2002) as it came to be known, was seen directly through the significant increase in enrolments and examinations in classical subjects after the film’s release (Owen, 2003) . Although this effect has tapered off in formal education more

recently, the release of the film marked the beginning of the resurgence in popular culture of a spate of classically-themed films and TV shows that built upon the interest in the ancient world engendered by *Gladiator's* release. This 'Gladiator effect' moved beyond the visual culture of film and television, and is even credited with motivating a turn towards representing antiquity in video games (Lowe, 2009): the subject of this thesis. Whilst clearly also driven partly by rapid technological advancements, it is perhaps no coincidence that since *Gladiator's* release in 2000, video games depicting the ancient world have flourished.

To ask why this turn might matter is to essentially ask why antiquity matters to our contemporary world. As the scholar Mary Beard articulated, "[s]ince the Renaissance at least, many of our most fundamental assumptions about power, citizenship, responsibility, political violence, empire, luxury, beauty, and even humour, have been formed, and tested, in dialogue with the Romans and their writing" (Beard, 2015, n.p). The ancient world is not as distant and irrelevant to contemporary life as some may think: one need only to walk around any city in Europe or the Americas to see the presence of antiquity on the modern world.

One can visit the towns of Athens, Olympia, Sparta or Troy in various U.S states, or have a 'Greek Life' at universities, the term used to refer to members of American University sororities and fraternities. Government buildings and banks are built in the neo-classical style, giving a carefully unspoken authority to these powerful institutions. The White House, the symbol of both American democracy and power, famous for its gleaming brightness, stands reminiscent of the weathered marble of antiquity, complete with pillars and pediment. American democracy functions through a senate, a construction with direct and arguably, purposeful, reference to the Roman world. Within the walls of the White House, it is alleged that policy makers turn to Greek history to inform contemporary decision making (Crowley, 2017). All the while, in the press, the current U.S president, Donald Trump, is regularly compared to Roman Emperors, especially Nero, famed for 'playing the fiddle' while the city burned (Addis, 2018; Jones, 2017).

So too, is the legacy of ancient Greek prejudice felt broadly in our continuing problematic conceptualisation of the world according to ‘orientalist’ (Said, 1978) dichotomies of ‘East vs. West’. At the local level, in the UK, we still use the linguistic Roman roots of the names for our cities, such as Londinium (London) and Mancunium (Manchester). The personification of our country, Britannia, borrows the iconography of the Greek goddess Athena and the equivalent Roman deity, Minerva. Doctors worldwide still take the Hippocratic Oath today. We know that “Rome wasn’t built in a day”, and that “all roads” lead there. We are wary of “Greeks bearing gifts”, and take active precautions against Trojan horse computer viruses by using Spartan antivirus software. Public figures are criticised for referring to people as “plebs” due to its elitist undertones (Mason, 2012), though “carrying the bride over the threshold” remains an accepted cultural tradition we inherited from the Romans.

Each of these examples points to the fact that the ancient world is operating in the present. Far beyond the ancient texts and remaining material culture, classical antiquity has a presence in the very cultural fabric of our contemporary societies. It is little wonder given this contemporary significance, that classics teachers have espoused the value of teaching classical subjects in schools (Kolaric, 2017). Yet, in scenes probably not unfamiliar to many in international educational contexts, in the UK very few students have access to studying classical subjects in formal education. This struggle has been exacerbated in recent years through the removal of classical studies from some A-Level exam boards (Haynes, 2016), extinguishing the last hope of many state-school students wishing to formally study classical subjects before university. Even once these students finally reach tertiary education, they may find themselves confronted with universities in which some classics departments are being downsized, or even closed completely (Gill, 2011). Those that *do* get to study classics in earlier formal education generally belong to independent, often elitist, private schools (Hall, 2015). As Hall notes, “[i]nstead of Greek ideas expanding the minds of all young citizens, Greek denotes money and provides a queue-jumping ticket to privilege” (Hall, 2015), furthering the association of the subject with the divides in the British class system (Hall & Stead, 2014). If such perceptions of elitism are not a barrier for

someone desiring to study classical subjects formally, then practical issues of access to, and accreditation of, the subject provide further obstacles that must be overcome.

By comparison, in popular culture, the technology that provides us access to representations of the past is increasingly available. Where a library card or theatre ticket was once, for many, the best hope of an encounter with the ancient world, in the contemporary media landscape, we have regular and relatively cheap access to representations of the ancient world in a myriad of formats. Streaming services offer us entire catalogues of viewing material that plays with the ancient past, while our Kindles can be filled with novels hoping to capture something of the ancient world that we can access quicker and more readily than ever before. Most households now own some kind of games hardware, and if not, then probably some kind of mobile device on which games can be played, allowing us yet another avenue of engagement with material using the ancient world as its theme.

It is this latter development that is most relevant to this thesis. As Lowe puts it, “[v]ideo games are therefore not only the latest, but the best example of classical reception: if antiquity is metaphorically ‘played with’ by the various media which refashion it, video games make the process literal” (Lowe, 2009, p. 65). Indeed, ancient history has enjoyed a particular popularity as a theme for games, particularly since the release of *Gladiator* (2000), with only medieval and World War 2 history having found similar frequency of use (Chapman, forthcoming, 2019). This popular interest in digital games that represent history is exemplified by the *Assassin’s Creed* series (2007-present), which has exceeded 100 million sales since the first title was released in 2007 (Makuch, 2016). The most recent iterations of the franchise have turned towards the ancient past, with *Assassin’s Creed: Origins* (2017) set in Ptolemaic Egypt under Cleopatra’s rule, selling over 4 million copies to date (VGChartz, 2019). The newest instalment in the series, *Assassin’s Creed: Odyssey* (2018) was released in 2018 and is set during the Peloponnesian War between Athens and Sparta c.431 BCE, and currently has sold over 3 million copies (VGChartz, 2019). The numbers of copies sold for both these installments demonstrate the series’ popularity amongst people who play digital games. Furthermore, and perhaps crucially, these games provide

a means for the general public to engage with history, allowing them enfranchisement with the past (de Groot, 2009) by “offering everyday popular access to active types of engagements with historical practice that were previously rare, overwhelming, exclusive or simply unavailable” (Chapman, 2016, p. 272). Accordingly, digital games representing antiquity in some way allow people to engage with the ancient world, in a way that, as Wyke noted in relation to the ancient world on film, can help to bridge the perceived gap between elite and popular culture (Wyke, 1997).

Along with this popular interest in digital games representing history, a scholarly field has emerged: historical game studies. The continuing popularity of historical games, i.e. those that represent the past, or historical discourse about the past (Chapman, 2016, p. 16), has allowed the field of historical game studies to diverge somewhat from game studies more broadly, due to the predominance of historical theory and content as a factor in understanding these types of games (Chapman, Foka, & Westin, 2016). Though with the increased attention given to digital games in general, and history represented in games more specifically, investigations into how this medium represents history have begun to ask how these historical narratives, often with fictional components, affect or change our perceptions of the past (Kapell & Elliott, 2013a). As Kapell and Elliot note, “[w]hen history can be simulated, re-created, subverted, and rewritten on a variety of levels, new questions arise about the relationship between video games and the history they purport to represent, questions that traditional historical approaches cannot properly address” (Kapell & Elliott, 2013b, p. 2). As a research field, historical game studies has begun to provide answers to some of these new questions, through taking traditional historical methods into account, whilst also privileging the digital game *form* as an inherent part of the historical representation, that cannot be considered separately from the histories they represent (Chapman, 2012).

Given the popularity of historical games amongst players and the increasing prominence of historical game studies as a field of scholarship, the failure to address the question of what players learn from them, is particularly surprising. Popular representations of the past have been

said to influence our understandings of history, and our historical awareness (Copplestone, 2016; Fisher, 2011; Munslow, 2007). Yet, we still have little understanding of what effect historical games have on these understandings, and with particular relevance to this research, what players can actually learn through engaging with them. The lack of such studies and the call for more empirical research on player perspectives of historical games has been reiterated repeatedly (Chapman, 2016; Houghton, 2016; McCall, 2014, 2016). The purpose of this thesis, therefore, is to assist in providing more of this much needed empirical work on the perceptions, perspectives and practices of the players of historical games, with respect to learning about the past.

1.1. Research Objectives and Research Questions

The objectives of this thesis are to explore players' understandings of historical games, and their learning practices associated with them. This includes players' experiences of learning directly from historical games in terms of *what* types of historical knowledge are gained, and also the different learning practices that players engage in (within the games and outside of them) that affect *how* this knowledge is obtained. The latter includes activities such as information-seeking, the use of game forums, game modifying, the production and reception of written narratives about players' game experiences ('After-Action Reports') and gameplay ('LetsPlay') videos that include a commentary by the creator.

Accordingly, this thesis has research questions that incorporate the dual aspects of historical learning, that of learning outcomes (historical knowledge or understanding) and also the learning activities players undertake that inform this historical knowledge:

Research Question (RQ) 1: What do people learn through engaging with historical games?

Research Question (RQ) 2: How do people learn through engaging with historical games?

Through investigating all the surrounding activities in reference to historical games, this thesis provides an empirical foundation for understanding the interrelationships and connections

between the learning occurring from historical games and through associated learning activities, and how these elements influence and affect each other. This research also provides new insights into the pedagogical implications of historical games, in respect to the strengths and weaknesses of historical games as a medium for historical learning. Although learning *about history* is the specific focus of the thesis, this aspect was intentionally not included in the research questions, so other types of learning that do not relate to history (e.g. modern languages) are still incorporated as accrued knowledge resulting from engagement with historical games.

1.2. Thesis Outline, Terminology and Delineation

When 'games' or 'historical games' are used throughout this thesis, this is exclusively in reference to digital games (i.e. not analogue card or board games, etc.) unless stated otherwise. The historical games that participants played in this thesis are those that represent ancient history in some way, in particular ancient Greece and Rome (including its Empire). The study of these cultures and their ancient languages are commonly referred to collectively as 'classics', 'classical subjects/studies', or 'ancient history'. In this thesis, these terms are used interchangeably to refer to either ancient Greece, Rome or both, but not other ancient civilisations such as Sumeria or China, that are often included under the umbrella term of 'ancient history'. Similarly, the historical period (i.e. the 8th Century BCE - 6th Century CE) is often referred to as the 'classical period' or 'classical antiquity' though in this thesis I simply use 'antiquity', to refer to the Graeco-Roman period of history.

Representations of ancient Greece and Rome in historical games were used as the specific lens to address the research questions. The language of this thesis and the studies contained within it is English: consequently, participants in these studies were those who could understand, interpret, respond, write and converse in English. This predominantly included participants from native English-speaking countries (UK, USA and Australia) though English speakers from European countries and South America also participated in this research. As such, this thesis may represent

a particularly Western view of the impact of historical games on historical consciousness, though this aligns with, as previously outlined, the particular significance that antiquity has to these particular contemporary cultures. Additionally, although in general games attract the most commercial revenue from China, Korea and Japan, historical games are most commonly developed and consumed in UK, US and European countries (Gamedesigning.org, 2019). This is especially true of the games played by participants in this research: *Rome: Total War* (2004) and *Total War: Rome 2* (2013) were developed in the UK; *Hegemony Gold: Wars of ancient Greece* (2011) in Canada, and *Europa Universalis IV* (2013) and *Crusader Kings II* (2012) were developed in Sweden.

This thesis therefore does not intend to provide an exhaustive account of how players engage with all the currently available historical games that represent antiquity, as the games included in the following chapters are those that participants were already playing, and had chosen to play. However, particularly in the second study of the research, the games share commonality in the historical periods and the geography represented (i.e. Graeco-Roman) and also in the fact that they are all strategy games. Action games usually adopt a first- or third-person visual perspective, often forcing a player to complete particular goals in an often pre-determined sequence (Wainwright, 2014). Strategy games, however, give a player a perceptual viewpoint at god-level perspective (with these games often colloquially referred to as 'god-games'), and allow players the autonomy of making their own decisions in any sequence they choose, where their decisions have a significant impact on the game's outcomes.

Historical strategy games often involve the player interacting with large geographic areas (countries, continents, or even the whole world) and manipulating various large-scale historical systems (military, diplomatic, political, religious, economic, resource allocation, construction, etc.) within the game world to progress. Under the umbrella of the 'strategy game' definition, there are further sub-genres. Both the *Total War* games played by participants in this research are a hybrid of turn-based and Real-Time Strategy (RTS) games. In turn-based games, the player makes decisions that are implemented after they have completed their turn, before an opponent is given

the same opportunity. In the *Total War* games, when the player is about to engage in battle, the game perspective changes from turn-based to a real-time mode, forcing the player to manoeuvre and direct their units, while simultaneously responding to their enemy's actions, in real time as they occur (McCall, 2016). *Hegemony Gold* is a historical RTS game, but one that does not include turn-based elements. Grand strategy games more commonly simulate a series of wars (rather than a single war) and often over a much longer period of (game) time than turn-based strategy or RTS games. *Europa Universalis IV* and *Crusader Kings II* are the grand-strategy games participants played, and referred to, in this research.

More details about the nature and content of particular games are given as appropriate, as this thesis is *not* concerned with providing a formal analysis of the historical content within the games themselves. Much research adopting this approach already exists, as well as studies of how historical game representations relate to historical scholarship more broadly. This thesis instead investigates the players' perceptions of the games, and their individual experiences with them. Accordingly, this research does not assess whether players are 'correct', 'right' or have discovered historical 'truths' in their interpretations of the past as represented in the games, as this assumes that there is an unambiguous, objective reading of the historical content, which is not an assumption I make here.

In this research, history is viewed as a narrative, a fictive construction that is "neither entirely factual nor (still being based on evidence) entirely fictional" (Chapman, 2016, p. 8). This approach, that of history as narrative, has been adopted in the scholarship of Munslow (2007) and Rosenstone (2006) who expanded upon the ground-breaking theory forwarded by Hayden White (White, 1973, 1987). White proposed that even the academic writing of history has inherent subjectivities. His argument is not a rejection that there are 'facts' of the past, but only that it is the process of assembling those facts into a narrative of 'history' that gives meaning to those facts. An author of a historical narrative, their position on and interpretation of historical facts, their context, and indeed their literary style all affect how the narrative is constructed, and thus how history, as a narrative form, is represented and received.

In this way, due to these fictive tendencies of historical narratives, both the construction and reception of historical narratives are an interpretive process, and therefore subjective. As such, in regards to this research, players' interpretations of the narratives in historical games, and similarly the historical narratives that these games represent and refer to, are also subjective. Therefore, although the participant's engagements with historical narratives in all their various forms are subjective, the ways in which they interpret the meaning of those narratives are relative to and dependent on their own experiences, and are historical truths *to them*. It is only by moving away from considering the narratives of history as objective reports of the past, to which the narratives in historical games either adhere to or not, that we can begin understanding how these games determine, affect or change players' perceptions of history.

1.3. Thesis Structure and Chapter Summaries

With these ideas in mind, chapter two offers a literature review divided into three parts. The first part provides an overview of existing empirical research focused on everyday engagements with history in varying forms, including heritage sites, formal (school) education, familial history, and popular media. The second details the literature that has informed the theoretical and conceptual basis of the thesis, particularly in regards to key concepts such as 'history' and 'learning' and in terms of the broader relationships between games and learning. The third narrows this consideration to explore literature dealing specifically with the role, possibilities and limitations of games as a historical form. This includes considerations of work that addresses the many different practices such games support (such as game modifying and after-action reports), the conceptual frameworks useful to the studies and provides an overview of the existing, though relatively scarce, empirical studies of the relationship between games and learning history.

To begin exploring the field and to start providing insights to answer the research questions, chapter three describes the methodology for the two research studies that make up the empirical components of this thesis. It provides the method and instruments for the first study, which was

used to generate preliminary findings that then informed the research design of the second, more focussed, study. Study one consisted of an online survey that investigated 621 respondent's perceptions of history represented in fictional TV, film and games. These three media forms were included at this early stage in order for responses to be compared across the media, in particular how respondents viewed each media as a means of learning about the past, their learning activities with the respective media, and the aspects of the media forms, and aspects of individual media texts within those forms that they perceived to be authentic or inauthentic.

The rest of chapter 3 outlines the qualitative approach and ethnographic methods for the second study of this research, which built upon the findings from the first study while also addressing some of its limitations. The second study pertains directly to players' learning experiences with historical games that specifically represent antiquity in some way, considerably narrowing the scope and focus of the first study. It also defines the particular types of learning activities undertaken by different types of players, and how the nature of these activities affected participant recruitment. This chapter also provides details on the data collection processes and how the data were analysed.

Chapter 4 describes the findings of the first study, and discusses these findings in relation to historical film, television and games. At this early stage, the study investigated informal learning, i.e. intentional learning outside of a formal educational curriculum (Livingstone, 2001). This was to establish whether respondents engaged with these respective media with the specific intention of learning about the past. The study also investigated incidental learning (sometimes referred to as unintentional informal learning), i.e. the unintended learning that occurs as a by-product of other activities (Kerka, 2000). In this context, the study considered whether respondents felt they learned something about history as a by-product of their media engagements. These findings then provided the necessary insights about audience and player perceptions and practices, which informed the design of the second study.

Chapter 5 describes the findings for the second study in depth, and outlines what historical games themselves provided participants in terms of deeper historical understanding, and also how their learning activities outside of the games enhanced their learning experiences, and the ways in which they did so. There were multiple implications of the findings of this study, which included both the participants' *perceptions* of their learning, as well as the researcher's *interpretation* of the learning evident in their data. The chapter provides extensive detail on the relationships between learning activities and knowledge outcomes, both directly from the games themselves and in respect to participants' learning activities in relation to them.

Chapter 6 discusses the implications of the findings in earnest, particularly investigating the strengths and weaknesses of historical games as a medium to learn about the past. It begins with a summary of the answers to the research questions, before scrutinising in detail the nature and significance of the findings of both studies. The findings of the second study aligned with previous research relating to historical games, as well as providing new insights – sometimes diverging from previous research – into how historical games are viewed for historical learning. The connections between the first and second studies are also highlighted, where the second study complemented the findings of the first, providing richer data and more depth to the ideas formed in reference to the initial survey responses. The research also generated new understandings of the interrelationships between historical knowledge, learning activities, and the numerous motivations amongst different types of players, and how all these elements are often connected. This chapter also included how the participants' local contexts of reception affected how they engaged with the content, in terms of the particular relevance the representations in historical games had to their perceptions of the contemporary world.

The conclusion recaps the main findings and implications of the research, in terms of the extent and impact that historical games can have on players' understandings of the past. It also summarises the main elements of historical learning enabled through direct engagement with the games, and also those that occur via surrounding informal learning activities outside of them. It provides the key contributions of this research, and also points to the implications of informal

learning more broadly, in terms of the blending and subjectivity of learning activities in relation to these games. The thesis concludes with the limitations of the research, methodological contributions and ideas for future studies, in terms of how researchers can expand upon and complement the findings of this thesis and the ways this could be achieved.

Although the research focuses on players' perceptions of historical games that represent antiquity in some way, the findings are expected to have broader implications for understanding how historical content is perceived in digital games in general. This is particularly in terms of affordances and constraints of the medium as a historical form, and what this form can offer in terms of informal historical learning about the past.

Chapter 2. Literature Review

The aim of this chapter is to situate my research within the wider body of knowledge on using digital games for informal historical learning, and to highlight the gaps in our existing knowledge. This chapter consists of three parts. The first (2.1-2.2) provides an overview of empirical research investigating how people perceive and engage with history in multiple (formal and informal) ways, and explains why ‘history’ is viewed as a narrative in this research. Secondly, sections 2.3-2.6 conceptualise how history, and then learning, are approached in this research context, before outlining how historical learning specifically is viewed. These sections focus on the literature relating to games and learning in general, in particular how digital games can aid learning through their narratives, and their interactivity. The final sections, 2.7-2.10, address how different types of games that represent history constitute a historical form, and how this historical form can enable learning about the past. The chapter concludes in 2.11 with the establishment of gaps in current knowledge in relation to the research questions outlined in the introduction chapter: *What do people learn through engaging with historical games?* (RQ1) and *How do people learn through engaging with historical Games?* (RQ2).

2.1. Empirical Research on Global Perceptions of Engaging with History

Previous research investigated people’s (formal and informal) engagements with history, especially in terms of the comparative trustworthiness of different sources. In their seminal study of how US Americans understand and engage with history, Rosenzweig and Thelen (1998) surveyed 808 respondents by telephone, constituting a national sample that reflected the demographic make-up of the contemporary U.S. (i.e. Irish-American, African-American, Native American, Hispanic, etc.). Their goal was to establish how U.S. Americans understand their past, and their engagements with history in formal and informal contexts. They asked participants to rate the ‘trustworthiness’ of different historical sources, such as heritage sites, family members, or visual media such as film, though the researchers equated the term “trustworthy” with

“authentic” (p. 216). Museums and heritage sites were ranked the most trustworthy sources (p. 92) as “authentic artifacts seem to transport them straight back to the times when history was being made” (Rosenzweig & Thelen, 1998, p. 12). Shortly behind heritage experiences, family history (e.g. looking at photographs or documents) and conversing with family members were also perceived as trustworthy historical sources.

Rosenzweig and Thelen’s (1998) study is a fundamental text when aiming to comprehend how people perceive the past, being one of the most widely cited that takes into account both informal and formal engagements. However, it was carried out in 1994 before the widespread ubiquity of the Internet and digital games, so did not address people’s engagements with histories represented specifically through these media. Furthermore, the survey’s aim was to establish how U.S. Americans engage with history, so there may be difficulties generalising its findings for a European context. However, following from this, Angvik and von Borries (1997) carried out empirical research in over 25 predominantly European countries. They found that European high school students enjoyed history and trusted their teachers as a source of reliable historical information, but ranked history textbooks amongst the bottom in terms of reliability. Like Rosenzweig and Thelen (1998), Angvik and von Borries (1997) found their respondents classed heritage sites, along with historical documents, as the most trustworthy. Their respondents also cited they were distrustful of the historical accuracy in historical films. While corroborating some of Rosenzweig and Thelen’s findings within a European context, Angvik and von Borries (1997) also collected their data in the early to mid-1990s, meaning their data again did not incorporate digital games or the Internet as a means of accessing the past.

Later research did begin to consider the roles of the Internet and digital games as ways that people engage with history. Ashton and Hamilton (2003) investigated how Australians connect with the past, collecting data between 1999-2003. Their findings were similar to previous studies in terms of heritage experiences though with small differences. School was not seen to foster a particularly strong connection with the past (Ashton & Hamilton, 2003). In addition, only 14% of respondents cited teachers as the most trustworthy source on the past (p. 11), an outcome that

diverges from Angvik and von Borries' (2003) findings that teachers were considered reliable sources for historical information. 7% mentioned the Internet as a way of investigating the past, which had not even been considered in the earlier studies, a number that increased dramatically in later studies of a similar ilk, most notably the Canadian research carried out by Conrad et al. (2013; Conrad, Létourneau, & Northrup, 2009).

As the most recent of the investigative studies, Conrad et al. collected data between 2006-7, finding that around 60% of their respondents had used the Internet for historical enquiry more than 5 times over a 12 month period. Nearly three quarters had watched historical film, and of these some had used the Internet for further research (Conrad et al., 2009). Despite the frequency of Internet use for historical enquiry, few respondents (8%) reported it as a trustworthy source (p. 31) and only 2% stated that the Internet was *the most* trustworthy source, compared with museums (40%) and books (20%). Overall, their findings were similar to the cited Australian, European and U.S. American studies; however, Conrad et al. did ask specific questions about digital games as a means of engaging with the past. Although 8% of respondents stated that they played historical games, Conrad et al. found they "brought no enthusiastic testimony to the impact of gaming on historical consciousness" (Conrad et al., 2013, p. 24). This said, they recognised that "computer games which now rival [and since Conrad wrote, often exceed] movies in generating profits will have an increasingly significant impact on the historical understanding of generations" (Conrad et al., 2013, p. 42). Though research into the nature and extent of this impact is still in its infancy, this thesis intends to explore how digital games relate to other forms in terms of historical engagement, and investigates the extent of this impact on players' historical understanding.

These studies are fundamental texts in understanding the different ways people engage with the past. They provide a broad overview of different engagements and have created a kind of 'trustworthiness hierarchy'. While, as we will see, assessing the trustworthiness or reliability of different historical experiences is an important aspect of historical learning, it is not the only component of historical education. Although an element included in the surveys (e.g. their

perceptions of history in school), historical learning was not the focus of the cited studies. Before we can begin to assess whether, what, or how people learn about history from digital games and other media, we must first set out how this research conceptualises history, learning, and historical learning specifically.

2.2. History as a Narrative

For the purposes of this thesis, ‘the past’ is the actual events that took place in the past, whilst a narrative is the decisions made to construct the past into the form we know of as ‘history’ (Munslow, 2007). Where ‘the past’ is a period of time in which events happened that are not invented, history is a constructed representation of those events. ‘History’ is thus a narrative representation (White, 1973, 1987) of “the interpretation of the significance that the past has for us” (Huizinga, 1929, p. 58). The word “interpretation” is critical here, as it highlights engaging with narratives as an interpretive, and therefore subjective process. Viewing history as a narrative means moving away from previous understandings of history as objective reports of the past, towards a relativist and subjective approach, which acknowledges that history can never be objective (Blake, 1955). Before establishing how people can learn from, or about historical narratives, it is useful to provide a definition of how learning is conceptualised in this research.

2.3. Learning in this Research Context

The most commonly implemented contemporary educational theories are descended from two main schools of thought: that knowledge is constructed in the mind of the learner (Piaget, 1959; Piaget & Cook, 1954) or knowledge is constructed through participating in social interactions (Vygotsky, 1962).¹

¹ Behaviourism, a learning theory popularised in the 1950s, has been heavily influenced by positivism. Epistemologically speaking, both positivism and behaviourism are “grounded in objectivism, which assumes that there is a single reality external to individuals” (Bichelmeyer & Hsu, 1999, p. 3). As the construction of history is not seen as objective in this research, nor how people interpret history, behaviourist approaches are not in alignment with the author’s conceptualisations of history and learning and consequently are not addressed.

According to Piaget, the founder of the constructivist approach to learning, a learner does not passively acquire knowledge, but instead actively assimilates information as part of the knowledge-constructing process. As Hung suggests, when adopting a constructivist approach to learning, “meanings are perceived as inseparable from one’s own interpretation” (Hung 282). Therefore, the meanings constructed from the same content by different learners are inherently subjective, as learning is an interpretive process in Piaget’s view.

However, the educational theorist Vygotsky (1962) rejected Piaget’s (1959) ideas that learning is only a cognitive process, as his theory only addressed learning in childhood, and also it did not take into account the importance of social interactions to learning or its relation to the wider learning context (i.e. social, historical, cultural, etc.). In Vygotsky’s view, how a learner interprets meaning is fundamentally defined by their social and cultural context, which unequivocally affects their internal cognition. Therefore, Vygotsky proposed a new theory of learning that acknowledged these interrelated elements of the individual, social, and cultural elements of learning: social constructivism. In accordance with Vygotsky’s social-constructivist theory of what learning *is*, there appears to be three main points to consider:

- Learning is a knowledge outcome, a product, that is created in the mind of the learner;
- Learning is a process of participation, and constructed in reference to social interactions with others;
- Learning cannot be considered independently from the context(s) in which it takes place, either at the local level (school, home etc.) or the global (cultural, social, historical etc.).

While these definitions are based on a theoretical top-down perspective of learning, empirical research has attempted to define learning from a bottom-up perspective, i.e. how learners themselves define and conceptualise what learning is.

Säljö (1979) carried out an empirical study that investigated learning from learners’ perspectives, an important text in the context of this research, which also focuses on learner perspectives. Säljö (1979) found his participants viewed learning in 3 ways. The first was that of learning as a

quantitative accrual and memorisation of facts. The second of Säljö's findings related to the participants' awareness of the learning context influencing what they felt they needed to learn and what processes they used to go about it; for example, learning in school was seen as a particular context that had little relation to learning outside of it (Säljö, 1979). Finally, Säljö found his participants distinguished between "*learning and real learning or, even more commonly, between learning and understanding*" (Säljö, 1979, p. 449, original emphasis). This real learning, or *understanding* was contrasted with the rote memorisation of facts in that it involved abstracting meaning from learning, rather than just recalling or reproducing what had been memorised. As Säljö notes, this abstraction of meaning is subjective: "it is a perspective, a point of view, an interpretation, a general principle, etc., rather than the plain 'facts' which people previously report having perceived as what is to be learned" (Säljö, 1979, p. 449).

Säljö's social constructivist perspective underpinned his empirical research on how learners conceptualise what learning *is*. It incorporates the view that learning/meaning is constructed in the mind of the learner, but in relation to their social interactions and the cultural contexts in which the learning takes place. As such, Säljö's research on learners' perceptions of their learning supports Vygotsky's social-constructivist theory of learning. Furthermore, Säljö's research distinguishes between *types* of learning, where the quantitative accrual of factual knowledge becomes a building block that can facilitate the subjective abstraction of meaning, or what *should* be learned, i.e. an understanding of the general meaning of what those facts signify (Säljö, 1979). For these reasons, this research adopts a social constructivist approach to learning, and in section 2.4 I outline how these conceptualisations relate specifically to history. However, before exploring how historical learning specifically will be assessed, it is important to make a distinction between different *types* of learning from the learner perspective, depending on their context and more importantly, their intention to learn.

2.3.1. Formal, Informal and Incidental Learning

Formal learning commonly refers to intentional learning occurring within formal educational contexts, such as schools or universities, where attendees are there for the specific purpose of learning and it is expected – and assumed – they will do so. When referring to learning occurring outside of formal contexts, but still with intention to learn, this is known as informal learning in the context of this research (where in the literature it can also be known as “intentional informal learning”, Livingstone, 2001). For example, looking up a timetable to see when the next bus is due, or checking Wikipedia to find out when Julius Caesar was assassinated, would both be instances of informal learning. However, learning can also occur unintentionally, that is, through engaging in an activity something may be learned that was neither intended nor anticipated. This type of learning, as a by-product of another activity, can be known as “unintentional informal learning” (Vavoula et al., 2005) or, as it will be referred to in this thesis, “incidental learning” (Kerka, 2000). For example, when looking at a timetable to check when the next bus is due (informal learning) a person may discover that free Wifi is offered on the buses to passengers (incidental learning). Or, through the course of playing a historical game for fun (i.e without a specific intention to learn about the past) a player may learn *incidentally* that Julius Caesar was assassinated in 44BC as a by-product of their play experience.

“Informal learning” is often used as an umbrella term that encompasses all types of learning occurring outside of formal contexts (e.g. non-formal, informal, incidental, etc.) though in this thesis there is a clear distinction between informal and incidental learning based on whether the learner *intends* to learn. More detail about how these distinctions manifested within the research data is given in the following chapters, specifically in chapters four, six and seven.

2.4. History and Learning

The social constructivist perspective of learning originated from the works of Vygotsky (1978, 1987, 2004) who asserted that learning is a process of using culturally constructed tools within an

individual's social context, allowing them to develop "culturally organized, specifically human, psychological functions" (Vygotsky, 1978, p. 35). In Vygotsky's view, language is the most universal of cultural tools, where mental functioning is unequivocally tied to the cultural, social and historical contexts in which the language develops: words are symbolic of the meaning behind them, and their meaning is culturally constructed.

Building on Vygotsky's research, Wertsch (1997) asserts that *narrative* is a cultural tool, like language (and indeed narrative is constituted of language, either explicit or semiotic), that facilitates meaning-making and understanding. Wertsch applied his theory of narrative as a cultural tool to historical narratives (Wertsch, 2000, 2004), based on the idea that historical narratives enable meanings to be constructed about the past, in relation to the social, cultural and historical contexts in which the historical narrative was developed. Vygotsky (2004) defined mastery of language as having enough understanding of the meaningful significance behind the external sign form (language) for the individual to communicate with others within a cultural context. Accordingly, Wertsch's mastery of a historical narrative is an individual's ability to reproduce or employ it as a cause of actions or events, denoting a cognitive mastery of the narrative (Wertsch, 2000). Wertsch's research demonstrates a socio-cultural approach to history. Where language is a cultural tool that conveys meaning, so too are historical narratives able to provide meaning to past events. How historical meaning-making, or learning, is conceived of in this research is addressed in the following sections.

2.4.1. Historical Learning as a Knowledge Outcome

Säljö's (1979) distinction between learning as a reproduction of facts and understanding as abstracting meaning from those facts is important in the context of historical learning. The ability to memorise and reproduce historical facts on demand does not necessarily mean a learner has any real understanding of what those facts signify. For example, you may have learned a Roman legionary wore a particular type of armour, without necessarily understanding what its benefits and drawbacks were, or why it was favoured for use at a particular time. Historical facts alone are "necessary (but not sufficient), for our *understanding* of the past" (Rosenstone, 2007, p. 592, my

emphasis), where the learning of “historical facts is useless without knowing how they fit together and why they might be important” (Seixas & Peck, 2004, p. 111).

It is precisely this deeper understanding of what historical facts signify that is fundamental to a learner’s historical understanding, and key to assessing what historical learning has taken place. Seixas and Morton (2013) define this deeper historical understanding with reference to six ‘Historical Thinking Concepts’ that they see as essential to the history learner (Table 1). These elements should be viewed in terms of knowledge acquisition (Sfard, 1998), in that they are distinct learning outcomes that demonstrate a learner has achieved an understanding of these 6 aspects. These skills are important to history students, as they indicate the learner has moved beyond the mere reproduction of historical facts to a deeper understanding of what those facts signify, aligning with Säljö’s (1979) conceptualisation of ‘understanding’. In the context of this research, the acquisition of historical knowledge should be understood not only as the recall and reproduction of historical facts, but predominantly in terms of the six elements outlined in table 1 that indicate a deeper understanding of what those historical facts *mean*.

Seixas and Morton’s (2013) book is a guide for history teachers that provides classroom activities and multiple different descriptors (‘guideposts’) for each of the six elements of historical thinking. This allows educators to assess the nature of a learner’s understanding with specific reference to the guideposts, and to see whether a learner achieves a deeper understanding of those six historical concepts. A full outline of these guideposts is found in 3.12, and how they were utilised in this research is given Chapter five.

Table 1. Author's summary of Seixas and Morton's (2013, p. 11) *Elements of Historical Thinking*

Historical Significance	<i>How do we decide what is important to learn about the past?</i>	The ability to evaluate the significance or triviality of certain historical events in relation to the broader historical narratives.
Epistemology and Evidence	<i>How do we know what we know about the past?</i>	How to critically approach historical sources and analyse their trustworthiness, authenticity and reliability.
Continuity and Change	<i>How can we make sense of the complex flows of history?</i>	Able to understand changes over time in some respects, though ultimately based upon assumptions of continuity in others.
Cause and Consequence	<i>Why do events happen, and what are their impacts?</i>	A way of thinking about historical causation, in terms of who makes historical change, and what economic, social or power structures that they are constrained or enabled by.
Historical Perspective-Taking	<i>How can we better understand the people of the past?</i>	Able to move away from presentism and understand the historical world from the perspective of historical agents, though this understanding is still grounded in historical evidence.
The Ethical Dimension	<i>How can history help us to live in the present?</i>	Recognising implicit/explicit ethical judgements within historical narratives, while exercising caution in imposing contemporary understandings of right and wrong.

2.4.2. The Processes of Historical Learning

Where Seixas and Morton's (2013) text is used to assess the knowledge outcomes associated with learning history, their framework does not categorise these outcomes in relation to participation in learning processes (Sfard, 1998) or the *activities* that take place throughout the learning journey. This research study addresses precisely these learning activities with reference to Conole's pedagogy profile (Conole, 2010, 2013). This framework was selected as it had direct congruence with the types of learning activities that players undertake in relation to games generally, and historical games specifically (see 2.9.1, 2.9.2). Conole defined six learning activities that learners can potentially undertake:

- Assimilative – reading, listening, viewing
- Information handling – manipulating data or text
- Communicative – discussing, critiquing etc.
- Experiential – practising, mimicking, applying etc.

- Productive – an essay, architectural model etc.
- Adaptive – modelling or simulation (Conole, 2013, p. 147).

The benefit of using Seixas and Morton's (2013) framework in combination with Conole's (2013) is that both can be used in conjunction with each other, allowing for the relationships between learning activities and knowledge outcomes to be established. Using these frameworks together thus aligns with the conceptions of learning outlined by Säljö (1979) and the approach to learning taken in this research, i.e. that knowledge outcomes cannot be considered independently of the learning activities (processes) in which the knowledge has been constructed. However, Säljö (1979) also stated that learning is dependent upon the socio-cultural context in which it takes place. Therefore, the learning contexts relating to historical game players are outlined specifically in 2.9.

However, before outlining the contextual factors in relation to engagement with historical games, it is essential to consider how games can facilitate learning more broadly, before establishing how this relates to historical games specifically.

2.5. Potential for Learning with Games in General

Contemporary scholarship in game studies asserts that digital games should be considered a ludo-narrative medium, in that they combine story and narrative conventions with interactive, ludic (i.e. gameplay) properties (Aarseth, 2012). Of course, not all digital games have a narrative focus. *Tetris* (1990) for example, is a puzzle game that has no specific narrative components. Conversely, games can also be less orientated towards gameplay and more akin to interactive stories (Ryan, 2009). While this might imply that not all games can be considered narratives, or that some do not even appear to be 'games' in the traditional sense, historical games are based on history, itself a socially constructed narrative (Wertsch 2000). Therefore, as historical games have interactive, ludic elements and are also based upon history in some way, this affirms that historical games are indeed a ludo-narrative medium. This means that the potential for learning

through games, historical or otherwise, must be viewed with reference to their constituent components: learning via the narrative, and learning through the interactive aspects of gameplay.

2.5.1. Narrative and Learning

Narratives are the primary means by which human existence is given meaning (Polkinghorne, 1988) and the “principle by which people organize their experience in, knowledge about, and transactions with the social world” (Bruner, 1990, p. 35). A narrative can be a powerful tool for learning (Szurmak & Thuna, 2013) allowing for contextualised, motivating and emotive learning experiences (Linnenbrink & Pintrich, 2001; McQuiggan, Rowe, Lee, & Lester, 2008). The utility of narrative as a learning tool stems from the fact that it replicates many of the existing strategies that the brain uses to learn, where it is able to see details as the part of a ‘bigger picture’; the individual elements that contribute to understanding of the cohesive whole (Szurmak & Thuna, 2013). As Wertsch suggested, narrative is a core cultural tool for history, a mediational means “between human action.... and the cultural, institutional, and historical contexts in which this action occurs” (Wertsch, 1997, p. 24). In this way, narrative is a cultural tool for meaning-making and understanding in a variety of contexts and situations, and especially so within the context of history.

2.5.2. Narrative and Immersion

Experiencing a narrative in any form allows audiences to be engrossed in a story, becoming absorbed in the particular time, date and location within the world in which the narrative is set (Busselle & Bilandzic, 2008). This sense of being ‘lost’ in a story (Nell, 1988) is often accompanied by a decrease in self-awareness, and awareness of the real world, where the narrative’s receiver is solely focused on the unfolding events and is effectively mentally *transported* (Green & Brock, 2000) into the world in which the story takes place. Murray defines *immersion* in a similar way to transportation, as “the experience of being transported to an elaborately simulated place” and

“the sensation of being surrounded by a completely other reality” (Murray, 1997, p. 98). This sense of *transportation* – or immersion – into a narrative world, a sense of ‘being there’ or *presence* (Zahorik & Jenison, 1998) is assumed to take place irrespective of the medium by which a narrative is communicated (Green, Brock, & Kaufman, 2004) meaning a narrative recipient in any medium (literature, film, games, etc.) is able to be transported, or immersed, into a story world.

2.5.3. Narratives in Games

Where traditional narrative models focus on the relationship between the spectator and the narrative they engage with (e.g. television or film), in digital games the player finds themselves as an actor within the narrative (Klevjer, 2002). Therefore, traditional models are inadequate when applied to digital games in particular where the interactivity of the medium is key to the player’s experience.

Immersion into a narrative can occur in multiple ways. *Emotional immersion* (Ryan, 2001) can occur through engagements with all forms of narrative, defined as the level of empathic attachment a viewer has to a particular character or situation they are in, and their ability to adopt the psychological perspective and emotions the characters feel (Bjørner, Magnusson, & Nielsen, 2016). However, with TV and film, a viewer may empathize *for* a character, but they are not one *with* the character, and still have a separate sense of identity from them (Coplan, 2004).

Games allow the player to essentially see through the eyes of their avatar, meaning they effectively *become them* within the gameworld. With digital games, the cognitive sense of presence within a narrative world becomes actualised, with the player having a virtual presence within a narrative game-world. Through their transporting properties, one of the features of historical games are that they encourage the perception of non-mediation, i.e. the viewer has a sense of presence in the represented past, able to know and experience past events (Hobden, 2013). Ryan refers to this sense of embodiment in a virtual world as *spatial immersion*, and while

“not strictly narrative, it echoes the importance of the setting... many people select narratives on the basis of where the action takes place... [and] setting is the most easily remembered narrative component” (Ryan, 2009, pp. 54–55).

The final type of narrative immersion pertinent to this research is the idea of *temporal* immersion (Ryan, 2001). This is the sense of suspense created due to the conclusion of the narrative being unknown, with this mystery creating an immersive experience for players through their “intense desire to know” (Ryan, 2009, p. 55). However, with games this narrative suspense is also linked to the ludic properties of games, in the sense that games have an uncertainty of outcome, i.e. the player is not guaranteed to win. In this respect, temporal immersion can refer to both the mystery of the narrative itself in terms of uncertainty, but also to the uncertainty of the outcomes of players’ actions within the game world (e.g. a battle).

This fundamental feature of games also overlaps with the idea of *ludic* immersion, which is distinguished from the above features of narrative immersion in that it is “a deep absorption in the performance of a task... [that] presupposes a physically active participant, [whereas] narrative immersion is an engagement of the imagination in the construction and contemplation of a story world that relies on purely mental activity” (Ryan, 2009, pp. 53–54). This idea of ludic immersion overlaps in definition with ‘flow’ (Csikszentmihalyi, 1990) described as an optimal experience where a person’s attention is solely occupied by an activity: in essence, they become immersed in a game through their actions that affect it. In these multiple ways a player is invited to become immersed within a game, though whether this immersion leads to learning requires consideration.

2.5.4. Learning and Immersion

Immersion has been said to benefit learning by outlining multiple perspectives (both inside and outside the particular phenomenon); and also through enabling situated learning within an authentic environment (Dede, 2009). However, empirical research has found differently. Prior

studies have found no clear links between immersion and learning (Hamari et al., 2016; Annetta, Minogue, Holmes, & Cheng, 2009; Georgiou & Kyza, 2018) with the latter finding that fully immersive settings actually appeared detrimental to student learning. Explanations of these findings included that learners had cognitive overload that diminished the potential for learning, as students were focusing on the visual aspects of the games instead of the learning objectives (Wrzesien & Raya, 2010). Also, the extent of learning taking place relating to immersion was entirely dependent on the context the games were played and the types of players (Hamari, Koivisto, & Sarsa, 2014).

These studies, while finding total immersion did not particularly aid learning, did find that “engagement ... the lower level of immersion, had a stronger relationship with ... [learning outcomes] ... only engagement emerged as a statistically significant predictor for students' conceptual understanding” (Georgiou & Kyza, 2018, p. 179). Georgiou and Kyza define ‘engagement’ as the first tier to immersion, as being interested in the game/topic and able to use the software (2018, p. 171). Cheng (2015) similarly found that only engagement was positively correlated with conceptual learning outcomes. While immersion in a game did not appear to affect learning, the perceived challenge of a game was an extremely strong predictor of learning both directly, and because it kept the learners engaged. Therefore, the “challenge created by the game appears to be an important antecedent for engagement, and essential for learning through the game” (Hamari et al., 2016, p. 177). These studies were all carried out with science learning within formal educational contexts, meaning there are issues with the transferability and applicability of these findings to this research. Although immersion can impact learning in relation to both the represented narratives and the ludic properties of games, how the mechanics of games can enable learning also needs consideration.

2.6. Game Mechanics and Learning

Games are an interactive medium, with rules and mechanics that allow a player to interact with the game and express their agency within the gameworld (Sicart, 2008). Broadly speaking, game mechanics are defined as “the various actions, behaviours, and control mechanisms afforded to the player within a game context. Together with the game’s content (levels, assets and so on) the mechanics support overall gameplay dynamics” (Hunicke, LeBlanc, & Zubek, 2004, p. 4). A player must learn how the mechanics of a game work practically in order to play it, but there is also the potential to learn *from* a game through interacting with it. It is the latter that is the most relevant to the aims of this thesis.

Scholars have long suggested that games can allow the player to develop their logical thinking skills and increase their ability to solve problems (Higgins, 2000; Whitebread, 1997). More recently, Gee (2003, 2007, 2008) advocated the pedagogical uses of games, particularly in terms of problem solving through negotiating a game’s mechanical structures: “[g]ood video games offer pleasure from continuous learning and problem solving. They are hard and complex and their difficulty ramps up as the game proceeds” (Gee, 2007). He also states the experience of problem solving can be used in ways “that lead from concreteness to abstraction” (Gee, 2008), or from learning to *understanding*, to use Säljö’s (1979) terminology.

Despite Gee’s claims, other researchers have suggested that the difficulty increase in games and the problem-solving Gee states this requires is merely an “*illusion of learning*” (Linderoth, 2012, p. 59, original emphasis). While players may perceive they are progressing through a game, they simultaneously become more empowered within it (through increased skills/levels or additional tools) which actually make it easier. Games provide perceptual cues to the player (such as highlighting certain paths or items) that lessen the need for players to solve problems within these environments (Linderoth, 2012), assertions that contradict Gee’s broad claims about the pedagogical benefits of games to the player’s problem solving abilities. Other researchers have suggested that problem solving within a game is very specific to the game itself, meaning there may be issues with the transferability of this skill to problem solving in general outside of the

game (Iacovides, 2012). Therefore, the occurrence of learning may not be as clear or as easily defined as Gee suggests.

This section has provided some insight into how the mechanics of games may enable learning, particularly in respect to problem solving. However, mechanics can actually make persuasive arguments through their procedurality, or “procedural rhetoric” (Bogost, 2008), an idea with additional implications for learning through games.

2.6.1. Procedural Rhetoric

“Procedural rhetoric is a general name for the practice of authoring arguments through processes. Following the classical model, procedural rhetoric entails persuasion—to change opinion or action” (Bogost, 2008, p. 125). As Bogost suggests, procedural rhetoric is where the mechanics/rules of a game make an argument (or arguments) about a particular issue or concept. As an example, the browser game *September 12th* (2010) displays a clear procedural rhetoric. The player sees a middle-eastern town with a target overlaid on screen (fig.1). When the player clicks, missiles fire at the town. While the bombs do kill some of the terrorists, they also kill innocent civilians. After the civilians mourn their dead, they turn into new terrorists for the player to fire missiles at. As the player fires more missiles, the process repeats and becomes exponential. Eventually, the town is destroyed and filled with terrorists, making the player aware that there is no way to win the game through firing missiles. The procedural rhetoric of the game is clear: violence begets violence. The game’s mechanics conveyed this idea without using any form of language, providing a simple example of procedural rhetoric.

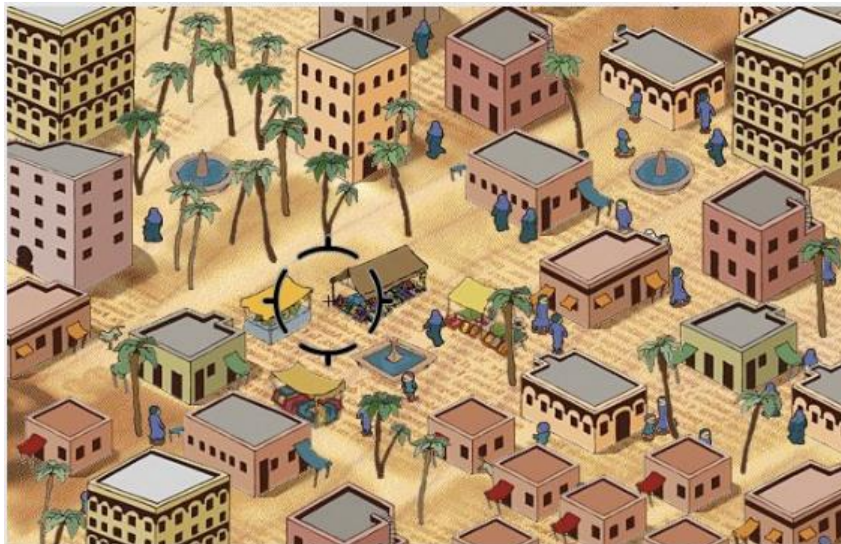


Figure 1. Screenshot of September 12th (Newsgaming)

Unquestionably, many games are far more mechanically complex than *September 12th* (2010) and can feature multiple instances of procedural rhetoric within a single game. This means procedural rhetoric becomes much more complicated, especially when applied to games that represent history or intricate historical systems. However, before we can assess how historical games include procedural rhetoric, we must establish how digital games can constitute a historical form, and how this form can potentially enable historical learning.

2.7. Digital Games as a Historical Form

Although there have been attempts at classifying digital game genres (Herz, 1997) these classifications do not include the thematic elements of the genre (e.g. fantasy, science-fiction or historical) and focus only on the type of representation and style of gameplay (e.g. first-person shooter or third-person action-adventure). For the purposes of this research, Chapman's (2016) terminology is used, specifically that of the classifications of historical games in terms of 'realist' or 'conceptual' simulations of history. Chapman's work is the first authored volume that proposes a composite theoretical approach to analysing digital games as a form specifically for the representation of history, which, unlike Herz's approach, takes the thematic historical elements into account.

2.7.1. The Realist/Conceptual Frameworks

Historical games that have a high visual specificity and purport to show the past as it appeared to historical agents are termed 'realist simulations' by Chapman (2016). They focus heavily on the visual aspects of representation, such as the detail in the environment of the virtual world as a whole. Realist simulations align with reconstructionist notions of history, "delivering its inherent story as *the* true narrative" (Munslow, 2007, p. 11, original emphasis) – of purportedly showing the past 'as it was', or how it may have appeared to historical agents (Chapman, 2016). The close player-avatar relationship in realist simulations casts the player into a "fictional role" (Linderoth, 2005) of a specific historical agent, where the player effectively 'becomes them' in the context of the game. In realist simulations, the progression tends to occur through cut-scenes (non-interactive cinematic segments occurring between periods of gameplay) and align with the types of linear narratives seen in TV and film. It must be stressed however that the term 'realist' is not a commentary on the realism of the game, or how accurately the representation reflects the past: it is merely a way of categorising games based on the audio-visual focus, how much the inner logic of the game world reflects real life, and how it portrays a singular historical narrative. In this thesis, realist simulations are contrasted with 'conceptual simulations' (Chapman, 2016) though in actuality the realist-conceptual framework for historical games functions as more of a continuum, where games can align more with realist or conceptual simulations, or have elements of both.

2.7.2. Conceptual Simulations and Discourses about the Past

Conceptual simulations "*tell* us about the past without purporting to *show* it as it appeared" (Chapman, 2016, p. 70, original emphasis). Strategy or 'empire building' games such as *Civilization* (1991-present) or *Europa Universalis IV* (2018) are conceptual simulations in Chapman's view, where there is a high degree of visual abstraction and little to be learned from the aesthetic appearance of the games' elements (Chapman, 2016). One horse could be symbolic within the

game of an entire cavalry unit, for example. In conceptual simulations the visuals are simplistic but the rules and mechanics are often very complex. This rule complexity and visual abstraction allows for large scale and/or collective aspects of the past to be represented (Chapman 2016) where the player views the world from a god-like perspective.

Because of the increased focus on rules in conceptual simulations, this means it is often the mechanics of the game that make arguments about the past. Consequently, conceptual simulations of history are built upon procedural rhetoric (Bogost, 2007) where game mechanics/rules are used persuasively, but with historical games this procedural rhetoric is used to make persuasive *historical* arguments. In other words, rather than telling *what* things happened (as in realist simulations), conceptual simulations explain *why*. The player gains access to historical processes in these types of games, as they not only simulate the past, but function as “simulation[s] of *discourse about the past*” (Chapman, 2016, p. 75, original emphasis). Where realist simulations deliver a singular narrative about the past (regardless of historicity), conceptual simulations highlight the multiplicity of historical narratives – demonstrating that there can be many competing narratives (Goldberg, Schwarz, & Porat, 2008).

2.8. Historical Narratives in Games

Conceptual simulations have narrative structures that are player-led, with few goals specified to the player at the outset of the games. As such, the narrative is very open and free-form, and directly affected by the player. This is in contrast with realist simulations, which have “*deterministic story structures*” (Chapman, 2016, p. 128) where the players’ decisions do not affect the broader narrative arc of the game’s story.

There are multiple, complex layers of narrative built into conceptual simulations. The historical narrative of the past, i.e. the period(s) of time in which the games are historically set (e.g. ancient Rome, Hellenistic Greece) provide a limited context about the nature of the subsequent events that will unfold in the game. Chapman (2016) refers to these types of narratives as *framing*

narratives, pre-scripted narrative events that provide structure to the narrative within a historical game. Importantly, framing narratives are not affected by the actions of the player throughout their gameplay. This is in contrast with the *ludonarrative*, that is, the narrative that emerges through the actions taken by the player, and how these events are connected.

The playing of historical games (whether realist or conceptual) functions as a form of historical narration that is “an active historical discourse between player and developer-historian” (Chapman, 2016, p. 120). Due to the multiplicity of options available to players in conceptual simulations, these ludonarratives are experiences that are unique to each player, and even each playthrough of a game, depending on how they interpret the relationship between the framing narrative and ludonarrative, as well as the relationship between the player’s actions and the developers’ content. The multiplicity of narrative choices availability to the player in conceptual simulations allow them to directly affect how the narrative unfolds, which can often result in the creation of counterfactual historical narratives. How counterfactual narratives can aid historical learning is addressed in the next section, followed by how counterfactuals function in games in 2.8.2.

2.8.1. Counterfactual Histories and Learning

Counterfactual histories are “simulations based on calculations about the relative probability of plausible outcomes in a chaotic world,” (Ferguson, 1997, p. 85). Counterfactual histories are not based upon fantasy, but when using counterfactual reasoning the alternatives that should be considered must be shown to be alternatives that contemporaries actually considered, and firmly based on the contemporary evidence for those alternatives (Ferguson, 1997). For example, a counterfactual history could speculate what may have occurred if Julius Caesar had not been assassinated, if Brutus and Cassius decided against spearheading his assassination - arguably an alternative they considered.

Counterfactuals occupy an uneasy space in historical scholarship. They were said by historian E.H. Carr to be no more than a “red herring” and a “parlour game... But they have nothing to do with ... history” (Carr, 1961, pp. 127–128). Some historians have concluded that the speculative nature of counterfactuals and their basis in assumption means they do not fit with the rigour of historical research (Huijgen & Holthuis, 2014), and others that history as a discipline “should not indulge in counterfactual speculation, but solely in what actually occurred” (Wainwright, 2014, p. 593). Even when counterfactuals are actually based upon historical data or evidence, they are still criticised as being “strained, farther from the data, or otherwise unrealistic” (King & Zeng, 2004, p. 185). Yet, since the late twentieth century there has been an explicit move away from deterministic historical narratives: those that impose “a notion of teleological inevitability that fails to acknowledge past contingencies” (Apperley, 2013, p. 189). By considering alternative possibilities in the past, counterfactuals emphasise the importance of contingency in history (Brown, 2008) and also the role of chance, causing the counterfactual approach to become more popular with scholars (Wainwright, 2014). Counterfactuals can be used to challenge dominant paradigms in history (such as deterministic or teleological approaches) and to interrogate ‘official’ versions of history (Apperley, 2018) through the consideration of multiple perspectives on a particular event. Given the increasing acceptance of counterfactual histories as a legitimate strand of history as a discipline, it is unsurprising that historians and history teachers have espoused the benefits of these types of thought processes for learning, and in formal education:

[T]he business of imagining such counterfactuals is a vital part of the way in which we learn. Because decisions about the future are – usually – based upon weighing up the potential consequences of alternative courses of action, it makes sense to compare the actual outcomes of what we did in the past with the conceivable outcomes of what we might have done. (Ferguson, 1997, p. 2)

Ferguson suggests that engaging in counterfactual reasoning in historical scholarship aligns with how we make decisions about the present for the future, though in addition to Ferguson’s general

assertion, other scholars have advanced three main arguments for the use of counterfactuals in education as a learning tool.

Firstly, counterfactuals allow a learner the scope to use their own creativity and imagination to generate insights into possible alternative courses of action (Jensen, 2004) that in turn can stimulate critical thinking and advance a learner's historical reasoning (Huijgen & Holthuis, 2014). Although these perspectives may appear to align with critics' concerns about the imagined, speculative and assumptive nature of counterfactuals, this creativity, as Ferguson stated previously, is based on contemporary evidence and plausible alternatives.

Secondly, "[w]hen a historian considers a counterfactual scenario, they construct it against their existing knowledge of what did happen but also against their understanding of the variables that could affect such a scenario *according to their historical understanding*" (Chapman, 2013, p. 68, my emphasis). Counterfactuals require that "one has become familiar with the culture and thinking of the people in question - including of course their norms, habits, knowledge, desires, expectations, technologies, living conditions, divisions etc." (Jensen, 2004, p. 157). Through this familiarity with the people in question and the surrounding contemporary context, this allows a learner to become aware that events in the past occurred precisely because of the *choices* made by these people, where these choices, if made differently, might have had different outcomes (Huijgen & Holthuis, 2014). In sum, in order to compare what did happen with what could have, it is essential to have a basic, even if vague, knowledge of the actual history (Atkins, 2005) to see how the counterfactual diverges from it. This is a fundamental premise underlying counterfactuals, as in order to understand the role of chance and contingency in history, one must first understand the specific context(s) upon which potential alternatives may have rested.

Finally, where a counterfactual can be used as a basis for investigating the corresponding historical knowledge, they can also be used as a way of interrogating history, encouraging reflection on the validity of historical evidence, and an evaluation of its plausibility (Apperley, 2013). Even professional historians wrestle with issues of plausibility and evidence, particularly in

relation to constructing a historical narrative. They must make plausible inferences from historical evidence that is often incomplete or conflicting, where this lack of data means that the constructed narrative is merely one possible past (Huijgen & Holthuis, 2014). Counterfactuals function in a similar way, also allowing a learner to become aware of and critique the dominant deterministic interpretations of scholars (Huijgen & Holthuis, 2014), especially those pertaining to world systems and the environment, through enriching their understanding of historical contingency (Wainwright, 2014). That counterfactuals can function as a challenge to dominant historical paradigms allows learners to understand that history “as it appears to us is in fact no more than a historian's construction” (Huijgen & Holthuis, 2014, p. 106) and that historical events are contingent on the choices made by people in the past and that there were other choices available that would have had different consequences.

2.8.2. Counterfactuals in Games

Counterfactual reasoning emphasises the roles of chance, historical contingency and human agency through choices and decision making. Therefore “if, as the argument goes, ‘History is merely the sum of millions of human decisions’ (Cowley, 2003, p. xvii) there does seem to be a particularly fitting alignment to exploring history through a form that so heavily privileges decision-making” (Chapman, 2016, p. 238). Games’ interactivity means the player can choose how they affect the game directly, as well as receive feedback on the consequences of their actions. With conceptual simulations however, the options available to the player and associated outcomes (the game *structures*) are based on historical models of causality “determined by the formal rule system, which has been created by the computer programming” (Kee & Bachynski, 2009, p. 3).

Unlike the static historical models found in scholarship, conceptual simulation games have dynamic, working models that simulate causes, effects, and changes governed by agency – and chance - as they occur. On this basis, historical games have been criticised for not aligning with

the historical record, or the conventions of academic history, precisely because of players' ability to engage in counterfactual histories within them. As Testa argues of the strategy game series *Civilization* (1991-present), "[it] cannot produce proper historical knowledge also (and probably especially) because its design, structure and logic produce counterfactual representations of geographic and historical (and more generically cultural) facts" (Testa, 2014, p. 265). Testa sees these counterfactual, "false" (Testa, 2014, p. 265) historical narratives as a serious defect of historical games. He gives an example from *Civilization* of the Iroquois building the Colosseum, defeating the English Empire and eventually colonising the stars, as an example of one of these falsehoods. As he understands it, the counterfactual narrative outcomes of engaging with historical strategy games "do not improve our knowledge world history (nor it goes without saying, do they produce new historical knowledge)" (Testa, 2014, p. 265).

Testa's assertions here are based on some arguably mistaken premises that appear to echo the remarks from scholars above about the use of counterfactuals in historical scholarship generally. As Chapman notes, Testa seems to perceive 'history' to mean only the retellings of 'event history', while ignoring the structural processes that may explain *why* these things happened, also a predominant concern of historical study (Chapman, 2016). The focus of these games on historical processes, the player's perspective of the gameworld and the lack of definitive goals in these games all signify that conceptual games do not *aim* to show the past how it was, through retelling a single narrative about it. In historical games, if interactions by the player result in the same, pre-scripted exact match to historical events, it fails to be an active model of the past and is instead a static simulation (McCall, 2011). These kinds of pre-scripted retellings of a single history are those more likely to be seen in realist simulations, which emphasise a coherent narrative over player agency, where there tends to be a single narrative outcome as opposed to a multiplicity of different narrative potentials. As an aside, it is also somewhat insulting to assume, as Testa's example suggests, that a player cannot see there is no Iroquois superpower in the contemporary world or intergalactic colonies outside of it, and would take these elements as historical facts.

The second mistaken premise of Testa's assertions rests on his perception that the 'actual' historical record of events that historians espouse is a 'truth' about the past. As this chapter has outlined (2.2), history written as a narrative is itself an act of interpretation and inference. As Apperley highlights, "historians are not discoverers of the truth about the past, they are participants in the making of historical "truth." By accepting the historians' subjective and interpretive role, history becomes not a discussion of the truth, but a dialogue where competing discourses can emerge and exist" (Apperley, 2013, p. 188). Such statements like those made by Testa based on the validity of some forms as 'proper' history and others as false history become increasingly problematic when blanket statements are made that games do not improve our historical knowledge, especially when the literature pertaining to counterfactuals in historical games suggests otherwise.

From a theoretical perspective, the interactive and playful aspect of historical games "allows for an in-depth understanding not just of facts, dates, people, or events, but also of the complex discourse of contingency, conditions, and circumstances, which underpins a genuine understanding of history" (Kapell & Elliott, 2013c, p. 13). Brown reiterates that historical games "represent a powerful pedagogical innovation, in terms of their unique ability to evoke empathy and to consider events from multiple perspectives... [inviting] students to consider a new range of issues, such as identity, perspective, agency and causality" (Brown, 2008, p. 119). He goes further, suggesting that historical games are actually the ideal medium to relay historical knowledge, as their simulatory affordances have the potential to allow players to better understand historical causality and contingency, and how past actions led to present realities. Similarly, counterfactuals in digital games are theorised to allow a player/learner to critically engage with history, offering the opportunity for the player to reflect on various interpretations of historical events (Apperley, 2013).

Given that conceptual simulations emphasise choice, and that the experiences of players are unique depending on their in-game decisions, there are multiple theories of how players can play in relation to counterfactuals. Apperley discusses methods of potential play (or counterplay) in

terms of *configurative resonance*, i.e. “when a deliberate decision is made to configure a game in order to either establish a resonance or highlight a dissonance between the virtual and ‘real’ worlds.” (2011, p. 135). This means a player can choose to play in a virtual world that reflects the options available and make decisions that align with similar opportunities/choices in the ‘real’ (non-virtual) world. Conversely, a player can make decisions available to them in the game world, but that are dissonant with the real world, such as taking actions that no one would actually do in reality, or those that may border on the fantastic.

Chapman (2016) expands further on these potentials in specific reference to historical games, discussing similar ideas in terms of *historical resonance*, where a player may choose to replicate historical narratives, or may choose to diverge from them counterfactually. If a player perceives a historical game resonates with their perception or understanding of the history it represents, then they “may seek to accentuate/maintain it... depending on the game-structure, by simply aligning with the ludic pressures that encourage the reproduction of this resonant representation” (Chapman, 2016, p. 44). Alternatively, a player may intentionally create a dissonance with their understanding of history as the game represents it, by “ensuring the [game] representation diverges from history.... resisting the game’s pressure to recreate the accepted history” (Chapman, 2016, p. 44). What both these approaches to playing a historical game require is that a player must have a knowledge of the history upon which the game is based in order to knowingly replicate/diverge from the history. This reiterates Atkins’ point previously discussed, that in order to diverge from a given historical narrative and engage in counterfactual reasoning, a person must have learned about, and have an understanding of, the actual history.

Having outlined the potential benefits and pitfalls of counterfactuals for learning with historical games in specific reference to how players may engage with them directly, it is worth mentioning how they may benefit historical learning indirectly, i.e. through learning activities occurring beyond the game experience. As Chapman suggests, “[l]ooking at games only as counterfactual texts does run the risk of ignoring their role as centres for counterfactual (and other kinds of historical) activity in popular culture” (2016, p. 243). The literature has highlighted additional

communicative, *productive* and *adaptive* learning activities that relate specifically to the counterfactual elements in games. Community forums for historical games provide extensive discussions on the causes and consequences of changing certain variables within a campaign (Köstlbauer, 2013). They also allow forum members to negotiate different opinions on the historical representations, “opening forum participants up to multiple perspectives on history” (Apperley, 2018, p. 12). Through the *communicative* activities taking place within these forums, players can reportedly gain an understanding of the nature of cause and consequence, through hearing the multiplicity of other players’ differing perspectives on their gameplay experiences. Discussions within forums are argued to revolve around two main drivers: the desire for historical accuracy means players discuss play styles that make the games more realistic, and the desire to examine counterfactual histories, where players discuss counterfactual imaginings of the past through games (Apperley, 2013). This seems to reflect the historical resonances forwarded by Chapman discussed previously, where players either desire to knowingly follow the ‘actual’ path of history, or diverge from it counterfactually. How these ideas of historical verisimilitude and counterfactual imaginings of history within games relate to the *productive* and *adaptive* learning activities are outlined in section 2.9.2.

2.8.3. Historical Games as Re-enactment

Historical re-enactment can offer an empathic experiencing of history (de Groot, 2006) through “furthering historical understanding by acknowledging the essential otherness of historical agents” (Agnew, 2004, p. 329). Traditional re-enactment provides reenactors with an approximation of the experiences of historical agents, replicating their practices and allowing them to experientially learn about aspects of the past. It is seen as a form of ‘retrospective travel’ (Dalrymple, 1989), effectively transporting the reenactor into a historical situation and allowing them to perform the role of a historical agent, giving them a “tangible impression of the past” (Gapps, 2009, p. 403). With traditional re-enactment, insight is gained via first-hand experiences,

in which suffering is a key component (Agnew, 2004, p. 330) for example, the fatigue felt by marching or the hunger caused by limited, though historically typical rations.

Historical games have the potential to constitute a form of historical re-enactment, termed *digital-ludic re-enactment* by Chapman (2016), though in this thesis I will refer to the re-enactment occurring through digital games merely as ‘digital re-enactment’. Historical games allows players to insert themselves into a particular moment in history, and become a part of the virtual world (Rejack, 2007). Thus, historical games have properties that transport the player virtually to a historical location, highlighting the “vivid distinction between past and present” (Agnew, 2007, p. 306) and the differences between the virtual historical world and the contemporary world of the player.

In realist simulations, by way of cinematic cut-scenes, the “emotional identification with the characters (if there is any) happens—as it does in cinema—by witnessing, not by interacting” (Rejack, 2007, p. 420). However, Rejack’s assertion here that emotional identification with characters in games occurs only through the cinematic elements is a perspective that doesn’t take into account the fact that digital games, especially conceptual simulations, rely much more on game-specific qualities like challenge and interaction (Chapman, 2016). This means games can promote a meaningful appreciation (Oliver & Bartsch, 2010) of the experiences of the historical agents through the re-enactment of historical challenges.

In realist simulations, the player is cast into a specific fictional role of a historical agent (Chapman, 2016). In conceptual simulations, the player acts how a commander is supposed to act and is expected to behave strategically like a commander, not playing out the commander’s emotions or personality (Jørgensen, 2009). This means that the types of re-enactment opportunities that historical games can offer depend on whether a game aligns more with realist or conceptual simulations, or can even vary within individual game titles depending on their narratives and mechanics.

2.8.4. Previous Research Assessing Accuracy in Historical Games

Having provided a theoretical overview of how different types of historical games (realist/conceptual) can make arguments about the past and how they can potentially do so (i.e. procedural rhetoric, digital re-enactment, etc.) it is essential to assess how the form-specific properties of historical games can aid learning. Although an overview of empirical research investigating the uses of historical games for learning is given in section 2.10, there is existing empirical research (Coplestone, 2016) that uses Chapman's (2016) realist-conceptual framework as a category for analysis. While Coplestone's paper does not focus directly on learning outcomes, it does assess one element of how players perceive and engage with historical games in terms of Seixas and Morton's (2013) six historical thinking concepts: the Epistemology and Evidence theme. Judging the reliability or authenticity of a text is an essential skill for any purpose, and especially so for history.

Coplestone (2016) carried out research investigating perceptions of accuracy² in historical games across three stakeholders: players, game developers, and heritage professionals. She implemented 52 interviews with each stakeholder group resulting in 156 interviews in total, and asked what games they felt were accurate and whether they felt accuracy matters, in order to compare how the responses may vary across these different groups. Coplestone (2016) found that the players and developers equated accuracy with visual depictions of the past in terms of how closely the visual elements in the game were faithful to the source material, aligning with realist simulations and reconstructionist histories. In contrast, the heritage practitioners began with post-modernist/deconstructionist approaches to historical accuracy in general, but when talking more specifically about accuracy in games, they tended towards more reconstructionist readings.

² Although in the current research, accuracy is taken to be the agreed upon facts of the past and authenticity is a subjective perception, Coplestone defines "accuracy" to have multiple meanings, both objective facts of the past that are measurable and absolute, *and* a subjective experience that is "contingent on the parties involved, media form used and the purpose of the account" (Coplestone, 2016, p. 3). Therefore the differences between our usages is one of terminology and not of meaning, see 2.8.5 for my definitions of accuracy and authenticity.

More than half of the developers who equated accuracy with the visual elements stressed this was due to how they had previously been taught history, i.e. in terms of names, dates, and photographs. This was also true with the player cohort, who perceived that books were the most authoritative form for history (the developers similarly so) and in order for a game to appear accurate, it should match what can be read in a book (Copplestone, 2016). The developers were particularly aware of how the game form affects how the historical content is constructed, though some players thought that their agency within the game made the games less accurate. This said, other players also felt their agency within the game more accurately reflected the choices made by historical agents, opposing views that highlight the subjectivity of the perceptions and engagements with this medium.

Although Copplestone's (2016) research addresses the differing perceptions of accuracy across different groups, it does not include what this means specifically for learning. Perceptions of accuracy and evidence are a crucial part of historical learning; but still only a part. As such, empirical research into historical games for educational purposes is addressed in section 2.10, though before this it is important to define what is meant by the terms "accuracy" and "authenticity" in this thesis, before outlining the contextual factors of players, and player activities, to provide a background to the forthcoming empirical analysis.

2.8.5. Accuracy versus Authenticity

Where "accuracy" is often taken to be the "agreed facts of the past" (Munslow 2007, 6), conversely 'authenticity' is "grounded in persuasive, believable constructions of reality" (Hobden 2013, 4). The grounding of concepts of authenticity in persuasiveness or believability implies its subjective nature: it is a perception, or "a sense of the genuine" (Chhabra, Healy, and Sills 2003, 704). As Copplestone notes in the paper described above, 'accuracy' can be considered as something absolute, measurable and objective but can also "be thought of as relational,

subjective and contingent on the parties involved, media form used and the purpose of the account.” (2016, 3).

Therefore, authenticity, unlike conventional understandings of accuracy, varies across stakeholder groups and cultural contexts. For example, conventionally authenticity is defined in the visitors’ own terms in research on heritage experiences (Waitt 2000, 847), where, according to Cohen, “the question is *not* whether the individual ... [has] an authentic experience ... but rather what endows his experience with authenticity in his *own* view (Cohen 1988, 378, emphasis in original).

But what are these terms in relation to historical media? What aspects of these representations do audiences and players’ consider to be authentic, or inauthentic? What endows an audience’s experience with authenticity in their own view? Despite the various ways in which it has been *theorised* that players can engage with history through playing historical games, there is very little empirical research that investigates their actual experiences in their own words. What players’ views, perceptions or feelings about historical media in terms of authenticity is currently understudied. Some works have recently begun to address issues of the perceived trustworthiness of historical games (O’Neill & Feenstra, 2016, for example, which is described below) as well as the previously provided work on the perceptions of historical accuracy in cultural-heritage games across different stakeholder groups (Coppelstone 2016). However this previous research has not considered how historical games compare with other historical media on the basis of authenticity, nor has it provided any connections between learning and perceived authenticity, an omission that my research aims to rectify. The first study for this research (found in chapter 4) investigated precisely these types of questions, in order to generate preliminary findings about how audiences perceive and compare different historical media forms on the basis of authenticity, and to begin to map any connections between learning and perceived authenticity.

Having defined how authenticity and accuracy are conceptualised within this thesis, the following section outlines the specific contexts and characteristics of players, which have particular relevance to the second study in this thesis.

2.9. Learning Contexts and Learner Factors

Digital games are most commonly experienced within informal settings, most notably the home (Phillips, Rolls, Rouse, & Griffiths, 1995). The most popular historical games are created primarily for commercial entertainment (i.e. not explicitly educational) purposes. Given these games are predominantly created for use outside of formal contexts, researchers have suggested that the natural environments where these games are most commonly played (i.e. the home) should be favoured when analysing the properties of these games (Tulathimutte & Bolt, 2008). In addition, the socio-cultural approach to this research means that learning cannot be considered independently from the context(s) in which it takes place, so for these reasons the data collection in later chapters was carried out with the participants within their local context.

Although playing games may physically occur in the home, learning activities in relation to historical games take place in a variety of contexts, especially online. Players take part in communicative learning through online game-related forums, becoming part of an online community, or what Gee terms “affinity spaces” (Gee, 2005). An affinity space is a (in this case virtual) place where a group of people with a common interest share knowledge in relation to a particular topic. Gee terms these groups of people “affinity groups”, where members can “interact with someone on the Internet or read something about a domain [i.e. a place where a particular type of content or a particular set of social practices is displayed]...recogniz[ing] certain ways of thinking, acting, interacting or valuing” (2003, p. 27). In the context of this research, the online forums relating to historical games provide a context for players to read/discuss particular types of content: the history, a game’s historical representation and/or their associated game mechanics.

Having established the different contexts in which players can engage with or with others about historical games, it is important to outline different types of learning activities that players engage in with relation to historical games, ideas that will have relevance to the later empirical analysis.

2.9.1. Consumers

In section 2.4, it was outlined that the knowledge outcomes of historical learning should be viewed in regard to Seixas and Morton's (2013) 'Elements of Historical Thinking' with Conole's (2013) framework to assess the learning activities (or processes). In accordance with Conole's learning activity taxonomy given in section 2.4.2, players of historical games would by necessity engage in at least one of the following activities (e.g. playing the game is itself an *experiential* activity):

Assimilative: reading, listening, or viewing information (within or outside the game) either offline (such as reading a book) or online (e.g. a wiki or forum);

Information handling: manipulating data or text, discovering, selecting or accessing content within or outside of the game;

Communicative: discussing, critiquing or sharing knowledge about the game or historical content either through in-game chat, face to face, or in online contexts (e.g. forums, wikis)

Experiential – practising, mimicking, applying, interacting or performing actions within the game, or reapplying knowledge to the play experience.

However, when considering players' engagements with historical games and their potential activities and interactions online, there appeared to be little scope for players to undertake the final two of Conole's learning types, the *productive* (e.g. creating, producing, writing an essay) and *adaptive* (modelling or simulation) activities.

Some players are actively motivated to create something external to the game though still relating in some way to the play experience. Although these players may still engage in the four activities previously outlined, they also undertake productive or adaptive activities. For the purposes of this research, players that engage in adaptive *or* productive tasks will be referred to collectively as ‘producers’, which in this context refers to players who undertake a process of creation, creating something distinct and separate *from* the game. This is contrasted with the players who *do not* engage in productive/adaptive activities, referred to henceforth as ‘consumers’, i.e. those players whose main engagement is *with* the game itself. The types of productive and adaptive activities that these producers engage in with reference to historical games is the subject of the next section.

2.9.2. Producers

There are 3 groups whose activities exemplify the *productive* and *adaptive* tasks of Conole’s (2013) framework, in reference to historical games. The first group is those players who write After-Action Reports (AARs) about their game experiences, epitomising the *productive* activity. The second group are those players who create gameplay videos for sharing online, which feature a running commentary by the player, known as LetsPlay videos. While different in many ways to AAR writers (‘AARTists’) the creation of these videos still constitutes a *productive* activity. Finally, some players (‘modders’) adapt or modify games through rewriting code, producing ‘mods’ or ‘modded’ games. This activity clearly aligns with Conole’s (2013) definition of an *adaptive* task, with more details about these types of game-related activities given below.

2.9.2.1. After-Action Reports and ‘AARTists’

AARs are traditionally used in military contexts, and are retrospective analyses that outline, recap and evaluate the nature of an occurrence (an exercise, deployment, etc.) in the form of a summary report (Ross et al., 2008). In the context of game studies, players also write AARs that

recap events and occurrences, though players' AARs are based on their experiences with a particular game or games. However, differences have emerged between the traditional military AAR and their game-based equivalents. One type of AAR, known as strategic or analytical AARs share much with military AARs, where the focus is on the actions taken, strategies and the game's mechanics. By contrast, story (or literary) AARs often include much more of a role-playing element, where players assume the voice(s) of characters within the game, create fictional characters, or use the games as inspiration for an entirely fictional narrative. In many ways, there is a lot of overlap between writers of story AARs with fanfiction authors, and indeed the boundaries between the two have become increasingly blurred. Though one key difference is evident: fanfiction can be completely fabricated, whereas AARs directly reference the gameplay experience.

Writers of AARs engage in a *productive* learning activity, taking the events of the game as inspiration to create something separate from it. They use a game as a historical source, taking events and speculating about their cause(s) or the motives of the historical agents, or strategize about the most efficient method of progression, combining these elements into a narrative.

Writing AARs adds an additional narrative layer to the *framing* and *ludonarratives* (see 2.8) where AARTists combine all these narrative elements within their texts. The construction of these narratives also has implications for learning and immersion, as outlined in 2.5.1 and 2.5.2.

There is an individuality to AARs: some players write a purely textual AAR; some include screenshots from games; some even do video AARs and upload them to YouTube. There is a communicative and discursive focus for AAR writers, in that they wish to share their text with other fans in an online community and receive feedback from them on their writing. There is very little empirical research about AARs in relation to games generally, and historical games specifically, in terms of the historical knowledge, learning processes, and social practices of the constructors of these narratives, a gap in the literature the current research aims to address.

2.9.2.2. LetsPlay Producers

Letsplay videos (LPs) are a visual medium that combines recordings of gameplay with a running commentary by the player/video producer. An important example of one of the most successful LP producers is 'PewdiePie'. In 2015, PewdiePie's YouTube channel had over 10 billion views (Burwell & Miller, 2016) where this huge number demonstrates the popularity and prevalence of this medium as a predominant way that people engage with digital games, without actually playing them.

Creating an LP becomes a performance for its producer: they create a persona and make decisions about how they will play and what they will say about it, in effect narrating their performance (Glas, 2015). LP producers "may set out to promote, review, critique or satirize a game. They may want to display their skills, participate in a community, or make profit – or quite possibly, all three" (Burwell & Miller, 2016, p. 110). However, entertaining the audience is always the main focus of LP producers, as what they want to display is irrelevant if there is no one watching.

LPs can indicate how a player makes meaning from games; not only do they reveal how they play a game, their commentary can also show in more detail how they understand and make meaning from their play experiences (Burwell & Miller, 2016). Consalvo argues that game paratexts like LPs have pedagogical functions in that players are able to learn how to play and evaluate games, while also evaluating themselves as gamers (2007, p. 22), arguing that these paratexts are often more central to their play experience than the games themselves. However, from the audience perspective, LP producers' "performances of mastery are not just created to impress other players but also to help them learn new skills and strategies" (Glas, 2015, p. 82). Audiences have the potential to learn from the LP and the producer's commentary, but the meanings they make are also socially constructed, through their interactions with the LP producer or with other viewers. This has led to assertions that we should view "LPs not only as artefacts, but as practices and sites for the production of social relations" (Burwell & Miller, 2016, p. 112) where the sites of

these interactions and the discussions that ensue define these online environments as affinity spaces (Gee, 2005).

Much of the literature pertaining to the educational potential of LPs is in terms of developing 21st century literacies (e.g. digital, game, multimodal literacies, etc.) (Duncan & Hayes, 2012); how they can develop language literacy (e.g. Rowsell, Pedersen, & Trueman, 2014); and also how paratexts such as LPs can aid second language learning (e.g. Chik, 2014). Given the number of LPs created in connection with historical games, there is surprisingly little empirical research on the benefits of creating or engaging with Letsplays from the perspective of historical learning, an omission that the current research will address.

2.9.2.3. Modders

A pertinent example of producer's *adaptive* activities and what they create, are 'modding' (game-modifying) communities. Members of certain gaming communities create modifications (mods) for games that are re-applied to the original game, and have different effects on the subsequent gameplay. As mentioned in 2.8.2, discussions in forums pertaining to historical games revolve around two concepts: accuracy and counterfactuals in games, respectively. In terms of players' *productive* AAR writing and *adaptive* modding activities, there are tensions between the desire for historical authenticity and counterfactuals. AARs are used "as a forum to discuss and justify the plausibility of the scenario that they postulate" (Apperley, 2013, p. 192). Köstlbauer reiterates Apperley's assertions with specific reference to AARs, where players use them to hypothesise on the benefits and effects of particular weapons or tactics on the game, and similarly asserts that historical accuracy (or indeed feasibility) seems to be the most important factor to most forum users (Köstlbauer, 2013)

Like Ferguson's approach to counterfactual reasoning (2.8.1) it seems that players and AAR writers also desire to engage in counterfactual playthroughs of a game (and some writing AARs about their experience) based on the perceived accuracy/plausibility of the associated outcomes.

Indeed, accuracy and plausibility appear to be key concepts within the debates about counterfactuals, irrespective of the apparent paradoxical juxtaposition of these elements. As Apperley asserts, “[t]he core critical element of counterfactual play is the focus on feasibility and the possibilities provided by imagining things “differently.” Desire for historical verisimilitude drives a constant evaluation of feasibility and redesign of the variables built into the game.” (Apperley, 2013, p. 195). Where players and AAR writers can evaluate the feasibility of their game experience, modders can contribute to, and affect these evaluations precisely through redesigning elements of a game in order to emphasise the counterfactual aspects.

Through *adapting* the elements of a historical game, modders construct and critique models of history inside a game-provided sandbox (Owens, 2011). Again, modders strive for realism when they adapt games, desiring to make them more historically accurate, while simultaneously creating and including elements in the mods that allow for plausible counterfactual gameplay.

This underlines the complexity of the relationships between player, modder and AARtist, facilitated by their forum contributions. A modder may release a counterfactual mod for a game that players and AARtists then evaluate, highlighting potential issues with the mod’s plausibility, and allowing the modder to remake the mod based upon the feedback from its users. This, in turn, allows for new experiences and readings of the mod, and associated activities.

Consequently, “[i]n the space of the forum the boundaries between playing the game, discussing it [also, I would argue, writing AARs about it] and making mods are blurred” (Apperley, 2018, p. 15).

The literature that discusses modding as a learning opportunity tends to focus on the practical skills that the modder can learn for computer science, coding or maths (El-nasr & Smith, 2006). Empirical research on modding communities has assessed their motivations and practices in relation to games that represent modern historical conflicts (e.g. Sotamaa, 2010) but without an explicit focus on learning. More research is needed to investigate modders of historical games, their motivations for doing so, learning and contextual factors, the types of historical learning activities they undertake (i.e. research/selection/representation of history) and the types of

knowledge they create in relation to constructing mods. More broadly, empirical research is needed to investigate these productive communities and the relationships between different learning activities (AARs, LPs, mods) in order to gain a greater understanding of players' experiences with historical games.

The producer examples given here, of AAR writers, modders, and LetsPlay Producers, demonstrated these groups' engagement in the *productive* and *adaptive* learning activities, in comparison with consumer players whose main engagements are with the games themselves. The final sections of this chapter will outline existing research on the pedagogical uses of historical games, in both formal and informal contexts.

2.10. Learning with Historical Games in Formal Educational Contexts

In the literature on historical games for learning, there are significantly more papers that are guides for teachers when implementing games in the classroom than there are studies that evaluate student learning outcomes. This said, these articles can provide valuable insights into the perceived value of using games in formal education, so warrant consideration. Multiple authors have written such guides for teachers (e.g. Christesen & Machado, 2010; Maguth, List, & Wunderle, 2015; Metzger & Paxton, 2016; Schrier, 2014; Wainwright, 2014) though often drawing heavily from the work of Jeremiah McCall and Kevin Kee.

McCall has written extensively on the subject (McCall, 2011, 2012, 2014, 2016). As a history teacher and holder of a PhD in Graeco-Roman history, McCall seems uniquely qualified to provide insights that are directly relevant to this research. His guides for teachers emphasise the importance of integrating games into the classroom in very specific ways in order for the learner to benefit from the full potential of historical games as pedagogical tools. At the forefront of his arguments is the importance of using games in conjunction with specific learning materials, including primary/secondary sources and supplemental reading, lectures, specific teacher instruction, other supporting media, and the importance of reflection and debriefing in the

process (McCall, 2014, 2016). McCall's findings about the importance of these interrelated activities to student's historical understanding were also echoed by other researchers in their empirical studies (Egenfeldt-Nielsen, 2005; Lee & Probert, 2010), more of which is discussed below (2.10.1). Although by McCall's own admission, the effectiveness of his approach to history teaching using games is anecdotal (McCall, 2014), he stated that the historical questions students raised were insightful, and that essays submitted for assessment were more persuasive than he previously experienced.

Kee (and co-authors) have written extensively about using historical games for learning, though from a slightly different, but interrelated, perspective (Kee, 2011; Kee & Bachynski, 2009; Kee & Graham, 2014). While providing frameworks for teachers to use when implementing games for historical learning, they cite the importance of identifying the learning goals for the history lesson before deciding on the most appropriate game for fulfilling those objectives (Kee, 2011; Kee & Graham, 2014). Their approach to historical games for history learning is that the games themselves should be considered as artefacts that must be deconstructed and (re)created, rather than an absolute to be received (Kee & Graham, 2014).

Following this line of reasoning, they espouse the usefulness of making mods for, or developing historical games, finding that these particular activities provide the "greatest opportunities for teaching history in an age of pervasive computing" (Kee & Graham, 2014, p. 278). Although their comments here are in regards to the opportunities for the teacher as opposed to the learner, their assertion about the usefulness of creating mods for historical learning is pertinent to my research, not only in terms of the learning occurring through the activity of making the mod, but also the surrounding research required to do so.

Kee and Graham's (2014) suggestion of having learners create or mod historical games aligns with their own previous experiences in game design, found in Kee and Bachynski's (2009) article, where they created a historical game specifically for educational purposes. The game complemented a documentary film aired at the same time the game was released, and was based

on a book of the same topic. Their aim was for the game to be used in conjunction with the other media, and also for engagement with one form to encourage engagements with another (Kee & Bachynski, 2009). Although this paper was more concerned with the creation and design of the game and the processes involved, its focus on the ways that history is relayed through a range of different media, and the relationships between these media in terms of learning is relevant to this research; however, the paper did not itself provide analysis of what historical learning occurred from these engagements.

Although the literature listed here gives a sense of the uses of historical games in education and the ways that students can become engaged in using them, the focus is firmly on the instructional techniques that teachers can use and the types of things teachers need to consider when implementing historical games in the classroom. Furthermore, the role of the teacher is integral to the learning process, in their selection of games and their integration into the curriculum learning objectives, their supplementary teaching materials and lectures, as well as their facilitation of learning throughout the students' play processes. Additionally, these papers predominantly relate to the use of historical games in formal contexts, or with Serious games, i.e. those specifically designed to be educational. As Berg-Markland notes, "while games created for 'formal' and 'informal' use are superficially similar, the different contexts in which they are used make them distinctly different from one another" (Berg Marklund, 2015, p. 1).

Consequently, there are issues as to the applicability of their findings when thinking about learning through historical games that are not used in these formal contexts, or with commercial ('non-serious') games. Nearly all of these papers rely on anecdotal evidence of students' learning, and are in reference to students under the age of eighteen. Therefore, although this scholarship should not to be ignored, it is nonetheless essential to review the limited empirical literature that addresses learning from the learner's perspective.

2.10.1. Empirical Research on Learning Outcomes with Historical Games

Beginning with research that presents an overview of learner perspectives of historical games and their perceived contributions to interest in, and knowledge of, particular historical periods, the findings from Houghton's (2016) paper will help contextualise how historical games compare with other historical learning activities. Houghton (2016) collected survey data from 41 students enrolled on a history course in a UK university. He asked students which historical activities (e.g. visiting museums, watching documentaries, formal education/study, playing digital games, reading text books, reading novels, etc.) had influenced their *interest* in particular periods of history, and which activities had influenced their *knowledge* of particular periods of history respectively. He presented students with these questions, amongst others, in reference to four historical periods: contemporary, modern, medieval, and ancient history. Given the focus of my research on ancient history, the findings related to this period are particularly relevant. Houghton found that the respondents rated their prior knowledge of ancient history to be significantly less than of the other three periods, as nearly half of the respondents (46.3%) had not studied ancient history beyond primary school (Houghton, 2016, p. 18). This indicates that their self-reported lack of knowledge about this period could be caused in some ways by their lack of formal education in the subject.

In terms of the responses pertaining to different activities influencing *interest* in ancient history, videogames were second only to TV documentaries, and were comparable with museums, in promoting interest in the ancient world (Houghton, 2016). However, in terms of the activity that was the most influential on *knowledge* about ancient history, historical games were cited as the *most influential form*, were a far more influential medium for ancient history than the other three historical periods (Houghton, 2016), and were perceived "as the single most significant form of media in informing knowledge" (Houghton, 2016, p. 25). Therefore, this finding is an important basis for the assumptions that underpin this research: that digital games representing ancient history are an important source of perceived knowledge about antiquity, a period that students felt they had less knowledge of.

Although Houghton's research helps to situate historical games within a wider context of various types of historical engagements, it doesn't provide specific empirical data on the aspects of these games that were seen as conducive to knowledge production, or what specific types of historical learning were taking place. As such, his paper provides a good overview, but lacks more specific data relating to historical learning outcomes.

Other empirical research papers do begin to assess more specific historical learning outcomes with historical games. Gilbert (2019) carried out interviews with 14 male students aged between 14-18, who were chosen on the basis that they had had the most experience with the *Assassin's Creed* (2007-present) franchise. Although she asked participants to compare their experiences with the games with their formal history learning, her focus was on the participants' unmediated interactions with the game (Gilbert, 2019). She found participants emphasised the roles of immersion and emotion in providing a "sense of immediate access to history" (Gilbert, 2019, p. 119) but also that these emotions were often taken at face value, and not critically analysed. Furthermore, their preconceptions about the nature of historical learning, in that it consists of the memorisation and recall of historical facts, meant they discounted their game experiences as being educational, and had difficulty connecting the game with their formal studies. However, her participants felt a greater sense of human connection to particular historical figures, rather than seeing them as abstract (as names in a textbook, for example). Their ability to interact with them in-game, and see their social and everyday interactions with other game characters increased this sense of connection, fostering a closeness with the historical figure (Gilbert, 2019).

Gilbert also found that playing the games helped the participants become aware of multiple perspectives on history, especially in terms of perspectives that are not always the focus of formal U.S. American schooling (that tends to relay a white-colonial perspective) such as the experience of black slaves, or Native Americans (Gilbert, 2019). This highlighting of multiple different perspectives encouraged students to question the (perceived bias of) historical narratives they had experienced at school, and led them to feel that the games were actually more trustworthy

than their formal education, precisely because they highlighted these markedly different perspectives (Gilbert, 2019).

In a similar vein, the participants assumed the developers would ensure the games were accurate, and found the moral ambiguity of the game (in terms of the multiplicity of historical perspectives) meant that they considered them to be fairly accurate, as the games would be less biased than their class teaching. This said, she also found that students were not able to contextualise the games as history, or in the present, and because of this the participants had an undesired tendency towards presentism (Gilbert, 2019).

Gilbert's research does much to suggest how immersion and the emotional connections to characters in games can help students gain an understanding of historical empathy, despite the limitations of her research. However, that her participants actually perceived the games to be more trustworthy than their formal historical study is interesting, as other empirical research refutes her findings.

Fisher (2011) carried out a similar interview study to Gilbert, assessing how participants' experiences of World War 2 (WW2) in first-person games related to their formal historical schooling of WW2. She found that the learning occurring with the games often occurred in tangential ways, by either initiating an interest in the historical period, or informal learning for the purpose of checking the accuracy of the game (Fisher, 2011). Students were sceptical of the information provided in the games overall, and would not expect it to be correct. This meant they questioned the games as a legitimate source for learning, and thus a legitimate form of knowledge about the past. O'Neill and Feenstra (2016) had similar findings relating to the perceived inaccuracy of games as a historical source, where their participants felt that they didn't learn anything beyond superficial aspects of history, with half of their participants citing the developer's commercial interests as affecting the accuracy of the game (O'Neill & Feenstra, 2016).

Gilbert (2019), Fisher (2011) and O'Neill and Feenstra's (2016) findings have all begun to address the role of historical games for learning about the past without the specific presence of a teacher

to facilitate learning, and without specific, formal learning objectives. However, the focus of the studies cited here is still in some respects on the comparison between these informal engagements with formal education, O'Neill and Feenstra's (2016) paper excepted. They tend to focus on individual aspects of historical learning such as empathy or accuracy, and not on other aspects of historical learning that contribute to a fuller understanding of history as outlined by Seixas and Morton (2013), and how these elements overlap and affect each other. Finally, the research studies outlined here are all focused on the learning that can occur with realist simulation games, so empirical research on learning outcomes with conceptual games needs to be explored further.

One of the most seminal studies on the impact of using conceptual simulation games for learning is the work carried out by Kurt Squire (Squire, 2004, 2006; Squire & Barab, 2004; Squire & Durga, 2009). In his doctoral thesis, Squire (2004) outlined the experimental research he carried out using *Civilization III* (2001) with an after-school club who had previously failed their history/social studies class, where the data he collected formed the basis of many of his subsequent papers. Despite being an after-school club and therefore extra-curricular, the study was still conducted in a formal context (school) and had formal learning goals that were specifically linked to the class' formal historical learning objectives (Squire, DeVane, & Durga, 2008).

He found that the learning that did occur was tied to particular goals, and the students refined their ideas in relation to these goals. This meant that the learning occurring was very contextual and specific, and that students had difficulties in translating their understanding of the game to the study of history more broadly. After some time, the students did eventually engage in informal learning relating to the game, where their "[f]ailure to understand basic facts... drove them to learn" (Squire et al., 2008, p. 512). However, the researchers stated that the learning occurring through the games and in relation to them was mediated by class discourse. While the students would often converse with each other by asking for advice or engaging in other social exchanges, the researchers gave the students the academic language to discuss the historical concepts, and facilitated the classroom discussions.

The presence of the researchers were thus integral to the students' understanding, so in many ways they took on the role of a teacher. Squire et al. (2008) highlighted that much of the learning motivation came from in-game failure, where the students' awareness of games' replayability meant they were able to engage in "hypothetical history" (Squire & Barab, 2004, p. 508), and through their failures they engaged in problem solving, gaining a better understanding of historical cause and effect. This said, they found that the most powerful learning occurred when students were able to reflect upon the interplay between different concepts (e.g. history, politics, economics), a finding that aligns with McCall's (2014, 2016) assertions.

Other authors have also used the *Civilization* series (1991 - present) in empirical research in formal contexts to assess learning, such as Berg Marklund (2015). However, his focus was not on assessing learning outcomes from using the game, but instead upon the "examinations and descriptions of working processes, and an overview of the different challenges – practical as well as intangible ones – that arise when games and formal education merge." (Berg Marklund, 2015, p. 8). As such, his thesis works as a guide for different stakeholders (developers, teachers, headmasters, students) about the challenges, benefits, and limitations of using games in the classroom, rather than an exploration of the type and extent of (historical) learning taking place.

It must be noted, however, that much as *Civilization* has been argued to be a game that constitutes a form of history (Chapman, 2013) that has frequently been highlighted in theoretical works and empirical studies as a means of learning history, it nonetheless has issues of specificity with respect to this research. Although a player may choose a leader from antiquity (such as Julius Caesar or Alexander the Great) and lead their forces to victory or defeat, who they choose makes very little difference to the gameplay. Technological and architectural advances (such as building a wonder of the world) are not exclusive to the civilisations who historically developed them, and are able to be 'discovered' or built by any civilisation. Its virtual world uses randomly generated maps so the geography in the game does not match the actual world's geography, and the game focuses on the nature of progress, though often in determinist and reductionist ways (Metzger & Paxton, 2016). For these reasons, it would appear difficult for players of the *Civilization* series

(1991 – present) to learn anything specifically about Roman history beyond superficial facts (such as the Romans had legions) given the flexibility of and accessibility to all civilizations in their ability to progress. Consequently, research on digital games that have more of a specific focus on ancient history is more relevant to my research.

Egenfeldt-Nielsen (2005) used historical games to assess learning outcomes, by implementing experimental research and comparing high-school learners' experience of *Europa Universalis II* (2001) with traditional history teaching.³ He found there was no significant difference in the factual post-tests between the experimental group (who played the game) and the control group (who received traditional instruction by the teacher), though also stated that the experimental group appeared to learn marginally less than the control one, but that the difference was not significant enough to constitute a finding in itself.

This said, in a test given 5 months after the initial post-test, he found that the experimental group performed significantly better than the control group in terms of information retention. In his words, “[s]tudents using computer games seem to learn less, but will remember significantly better what they have learned compared to students using more traditional teaching methods” (Egenfeldt-Nielsen, 2005, p. 174).

2.11. Research Purpose and Rationale

This chapter began by outlining the existing empirical research investigating how people engage with history in various formal and informal ways. Though this research included fictional media (such as film) in their analysis, the data was collected at a time when digital games and Internet use were not as prevalent, so these aspects were not really addressed in any depth. While these

³ Although this particular game is set between 1419-1820 CE, later iterations in this series have focused on Rome specifically (*Europa Universalis: Rome*, 2008), and other titles/extra content by the same developer which function in similar ways mechanically also have more of a focus that is relevant to this research (e.g. the *Crusader Kings: Legacy of Rome* game expansion). Therefore Egenfeldt-Nielsen's findings may be applicable here.

studies assessed perceived trustworthiness of different media, they didn't specifically address learning. Although studies like Rosenzweig and Thelen's (1998) are seminal in providing a broad overview of popular perceptions and engagements with history, twenty years have passed since their work was published meaning new research into historical games as a means of engaging with the past is required.

Similar arguments can be made about research relating to historical games, where the most influential study on the use of historical games for learning carried out by Squire (2004) was published over fifteen years ago. New research is needed that reflects the changing patterns of learning in the contemporary world, facilitated by online activities. Existing research on the use of historical games in formal educational contexts is imbalanced, with far more papers providing teachers with strategies for integrating games in the classroom than on the associated learning outcomes for students. For those studies that do investigate historical learning from the learner perspective, most are carried out in school contexts with students under the age of 18.

Furthermore, in many of these studies the teacher's presence is integral to facilitating student's learning, in terms of how they choose and integrate the games into the curriculum, their use of supplementary learning materials, and also helping students to play and understand the games in the lesson. Those that do profess to investigate unmediated engagement with historical games were still carried out in formal contexts and in reference to the history curriculum, focusing on individual aspects of historical learning, such as accuracy (Gilbert, 2019) without addressing other aspects of historical learning. Studies that do investigate adult engagements with historical games either give an overview of different periods (Houghton, 2016) or use dated realist simulation games (O'Neill & Feenstra, 2016).

There appears to be little empirical research with historical games that specifically addresses adult players' learning about history through historical games:

- without the physical presence of a teacher or other knowledgeable individual;
- in the natural environments that they are played (i.e. the home);

- through online environments such as forums;
- in relation to the types of informal learning *activities* players engage in;
- themselves, or the surrounding activities related to the games, and how these activities may produce historical understanding;
- that provides a comprehensive and detailed investigation of learning activities and historical knowledge outcomes, and the relationships between them.

This literature review chapter was driven by the research questions. However, this literature review has also reiterated the need for this research by highlighting the gaps in our current knowledge on the pedagogical implications of historical games. The aims of this thesis are thus to address these gaps in knowledge, and to provide a comprehensive understanding of the nature and extent of historical learning occurring with adults outside of school contexts or experimental settings. Given the lack of research that addresses these elements of historical learning in relation to all periods of history, despite the focus of this research on games about ancient Rome, the findings in this thesis will have broader implications of learning with historical games that are applicable to all periods of history.

This chapter outlined that learning in the context of this research is viewed as a knowledge outcome (or product) and as processes dependent on specific learning activities. The RQs for this research, *What do people learn through engaging with historical games* (RQ1) and *How do people learn through engaging with historical games* (RQ2) reflect this duality in the conceptualisation of learning, and incorporate these different, though interrelated aspects. It is important to note that although the predominant focus of these RQs is what/how players can learn *about history*, the RQs have been left intentionally broad to encompass all types of learning with historical games (whether historical or otherwise) that are still considered a knowledge outcome. In order to begin answering the research questions, two studies were carried out, the details of which are given in the following chapters.

Chapter 3. Methodology

In chapter two, the different types of activities that players can undertake in relation to historical games were discussed (2.4.2), as well as the nature of historical understanding/knowledge that could be gained as a result (2.4.1). However, perhaps needless to say, this historical understanding is by its very nature subjective, both in terms of their subjective interpretation of a historical representation/narrative and also in that different people could play the same game and engage in the same activities, with completely different knowledge outcomes. The historical understanding obtained, and the processes by which they are gained are similarly socially, culturally and contextually bound, both in terms of the players themselves, as well as the cultural tools (the games) with which they interact. The literature outlined in chapter two thus informed the epistemology and the research approach, provided in the following section.

3.1. Epistemology

This very subjectivity of knowledge is what defined the approach to this research as subjectivism, as opposed to objectivism (or positivism), which espouses that meaning is fixed and stable, and independent of interaction and cultural experience (Crotty, 1998). Adherents of a positivist perspective believe there are universal truths “that apply uniformly, they extract simple relationships from a complex real world and examine them as if context did not matter and as if social life were stable rather than constantly changing” (Rubin & Rubin, 2012, p. 22). However, for reasons previously outlined, neither the historical knowledge is considered to be objective, nor can the knowledge that is *produced* by this research. The inherently subjective social and cultural contexts of the players and the subjectivity of their interactions with the games could not be ignored in regard to their knowledge building processes. Consequently, this research assumed a subjectivist perspective.

3.1.1. Researcher Role

What this means is that while learners may engage with the same historical game, they may have vastly different understandings (and construct different forms of knowledge) of their engagement. The knowledge created is therefore a “truth”: not objective truth (if such a thing can truly exist), but *a* truth to the learner. Historical learning then is therefore relative, and dependent on the individual’s interpretation of the represented histories, in conjunction with their cultural context of reception. Given that a learner’s interpretation of a history will therefore be a truth *to them*, it was not my role as a researcher to adjudicate between these multiple different truths, or to assign greater value to some participants’ interpretations as more ‘right’ than others, or even ‘wrong’. Indeed, even so-called ‘objective’ historical truths, or ‘facts’, are often re-evaluated, as new technologies, discoveries and evidence emerges.

For these reasons, I consider ‘knowledge’ in general, and especially in regard to history, to be subjective (where history itself is seen as a subjective process of narrative interpretation, see 2.2). This is in terms of both the participants’ construction of historical knowledge, which as section 2.3 indicated, learning in general is perceived in this thesis as a subjective process of meaning-making dependent on the learner’s context. But, this subjectivity also refers to *my own interpretation* of their data and learning, the practical implications of which are discussed in section 3.13. This epistemological underpinning thus defines my role in this study as interpretivist, elucidating meaning about how and why things happen – in this case how historical knowledge was constructed by players through engagement with historical games. As such, my role within this research was to interpret, describe and explain, and not to adjudicate between different types of knowledge as more “true” than others.

Therefore, the nature of what was being studied (learning, history), the epistemological perspective from which it was approached and my interpretivist role all underpinned qualitative research methods of enquiry. In qualitative research, “the goal is understanding rather than measuring and manipulating, the subjectivity of the researcher is an essential part of the production of an interpretation” (Adams et al., 2008, p. 139). The aim of this research was to

understand the learning practices and types of historical knowledge achieved with and in relation to players of historical games, as opposed to measuring or manipulating the players' activities.

3.2. Study 1. Comparative Investigation of Historical Media Perceptions.

As outlined in chapter two, existing research provides a broad overview of perceptions of historical TV and film in relation to their perceived trustworthiness, but did not address historical games, the Internet, or how these media are viewed as media for historical learning in detail. The first part of this chapter outlines the methods used in the first study of this research, an exploratory survey designed to generate preliminary findings. Specifically, the survey was developed to include player perceptions of learning with historical games and their associated online practices, on order to compare these with audience perceptions of learning (and learning activities with) fictional historical film and television (TV) series.

Including all three digital media forms (film, TV, games) allowed for the findings specifically on learning with historical games to be situated within the wider historical media landscape, and how perspectives on learning with historical games align with or diverge from those of historical TV and film. In addition, some questions were asked that assessed the potential relationships respondents' perceived between their use of digital and textual media (e.g. books, Internet sites) to begin mapping the interrelations' between these different engagements.

The first study was implemented to be exploratory, to generate preliminary findings and provide me with a better understanding of people's perceptions of these media as tools for informally or incidentally learning about history (see 2.3.1). There were two main objectives for the survey:

- 1) To gain an idea of audiences' motivations and activities in relation to historical media.

For example, do audiences engage with historical media with the specific intention of (informally) learning about the past? Do they do so because they have read a book with similar historical content? What are the multimedia relationships with historical media, i.e. does engagement with

one form inspire engagement with another? Do audiences engage in information seeking activities (on or offline)? How do different media forms compare with each other on the basis of these questions?

- 2) To develop an understanding of audience perceptions of learning and authenticity of historical representations in media (explicit or implied).

Do audiences feel they have learned as a by-product of their engagement with historical media, even if that wasn't their specific intent? Which media *form* (TV, film, games) do audiences think is the most authentic (if any)? Which individual texts/titles within those forms produce perceptions of in/authenticity? What elements within those texts contribute to these perceptions? The method for the survey, outlined in the next sub-section, was designed to begin providing some insights into these questions.

3.3. Method and Instruments

A survey was created online with Bristol Online Surveys, and designed to take ten minutes or less to complete. It was distributed via social media (Facebook; Twitter) and academic mailing lists relating to media, history, and game studies respectively. This was for the purpose of obtaining the most respondents possible to complete the survey from a range of different perspectives. A conscious decision was made at the outset to allow respondents to answer in reference to all periods of history rather than restrict their responses to a particular historical period (e.g. ancient, medieval, modern, etc.) for two reasons. Firstly, this allowed respondents to answer about particular media texts that were most meaningful or relevant to them, with the hope this would increase the response rate and the amount of data they were willing to provide (e.g. in the free-text questions).

Secondly, this was to assess whether there were any significant differences between the perceptions of different historical periods, which could have been a key preliminary finding if, for example, classical antiquity was perceived differently to other periods. The survey contained

twenty questions, a mixture of single and multiple choice, Likert and free-text questions (see Appendix A). It was split into two parts, the first asking questions about historical games and the second section asking the identical questions but with reference to historical TV and film combined, referred to in this chapter under the collective term 'historical drama'. This meant that respondents who did not engage with a particular form (e.g. historical games) were not forced to answer questions about them.

It was made clear at the outset of the survey and within the question wording throughout that only fictive historical representations should be considered as historical TV/film, and not documentaries or purportedly factual media texts. This allowed the responses relating to historical games to be more directly comparable with historical drama, due to the fictional aspects common to all three historical media.

3.3.1. Assessing Perceived Learning and Authenticity

In each of the survey sections relating to historical games and drama respectively, respondents were asked a free-text question asking what games/drama they engaged with, and why they enjoyed it. Although this did not ask participants specifically about learning, some respondents did include learning as a factor that impacted their enjoyment of the media. Two Likert scale questions were given to respondents with the statements: 'One of the main reasons I play historical games/watch historical drama is to learn something about history' and 'I have learned something about history through playing historical games/watching historical drama'. The former aimed to assess whether audiences/players had the specific intention of learning through their engagement, i.e. intentional informal learning (Davis, 1988) whereas the latter investigated incidental learning, that is, learning that occurs as a by-product of another activity (Kerka, 2000), in this case learning about history through engaging with historical media.

There were also Likert questions to assess multimedia relationships, i.e. 'I have decided to play a historical game/watch historical drama because I read a book or story with similar content' and also 'When I play historical games/watch historical drama, I am more likely to engage in other

media (e.g. TV, film, games) with similar historical content'. This was to assess whether there was a linear or unidirectional relationship between different media for motivating engagement with them.

For all the above Likert questions, respondents were given four options to choose from: Agree, Somewhat agree, Somewhat disagree, or Disagree. A 4-point scale (as opposed to a 5, or 7) was used for **all** Likert questions, including those related to authenticity outlined below. Research has shown little difference between 5, 6 and 11 pointed Likert scales in terms of reliability, mean, standard deviation and correlation (Leung, 2011) and that odd numbered scales that include a neutral option allow people to select it when they are demotivated by the survey even if it doesn't reflect their true feeling (Krosnick & Presser, 2010). A 4-point scale was used for these reasons, and also, on a practical level, to nudge respondents in one direction or another.

Respondents were given an option not to answer the question(s) but it was made clear this was not a neutral option.

There were three questions specifically addressing perceptions of authenticity of different media. The first asked respondents to give *their opinion* on the relative authenticity of historical TV, film, or games respectively, using a 4-point Likert scale with the responses Authentic, Somewhat Authentic, Somewhat inauthentic, or Inauthentic. That this was a question about the respondent's subjective and individual perceptions of these forms was made clear to respondents by stating "**In your opinion**" within the question itself.

The final two questions relating to authenticity asked respondents which particular media texts they perceived to be highly authentic, and highly inauthentic respectively. These questions were free-text, and in reference to all three media forms under discussion, allowing respondents to answer in their own words and to compare different media forms if they so wished. Textual data obtained from the free-text questions is provided in chapter four as respondents wrote it and without correction, though occasional insertions are made for clarity. However, all free-text

questions were optional and clearly marked thus, meaning not all respondents gave answers to these questions.

Once released, the survey was active for three weeks, and in that time was completed by 621 respondents. The free-text data was analysed using thematic analysis (Braun & Clarke, 2006) meaning themes within the data were identified directly from the data itself and not grounded in an existing theoretical framework, reflecting the exploratory nature of the survey. Themes were identified based on the frequency of references to them by respondents, and also the perceived significance by the researcher of certain responses, adopting the fundamentality and frequency approach used elsewhere in thematic analysis (Adams, Lunt, & Cairns, 2008).

3.4. Respondents

Of the 621 respondents, 51.6% identified as female and 47.2% as male (1.2% of respondents did not specify). Table 2 provides a demographic breakdown of the respondents' gender and age, though this is provided merely to give some context to the respondents as the data analysis saw no significant differences in the responses based upon these categories.

What is your Gender?	What is your Age?					Totals
	18-29	30-39	40-49	50+	Prefer not to say.	
Male	86	115	57	34	1	293
Female	75	89	58	96	2	320
Other	0	0	0	1	1	2
Prefer not to say	2	0	1	0	1	4
No answer	1	1	0	0	0	2
Totals	164	205	116	131	5	621

Question	Response Count
17	621
17.a	619

Table 2.
Demographic of survey respondents by gender and age.

The survey's respondents were from over 30 countries, though as the survey adopted a convenience approach to recruitment and no purposive sampling or stratification took place,

there were not enough respondents from each of these thirty countries to make any inferences based on nationality. In fact, over half of respondents were from the UK and a quarter were American or Canadian, so the findings may in fact only represent particularly western, Anglophonic perspectives.

Over half of the 621 respondents (341) stated they played historical games. Figure 2 represents the age and gender of respondents in reference to whether they stated 'yes' or 'no' to playing historical games.

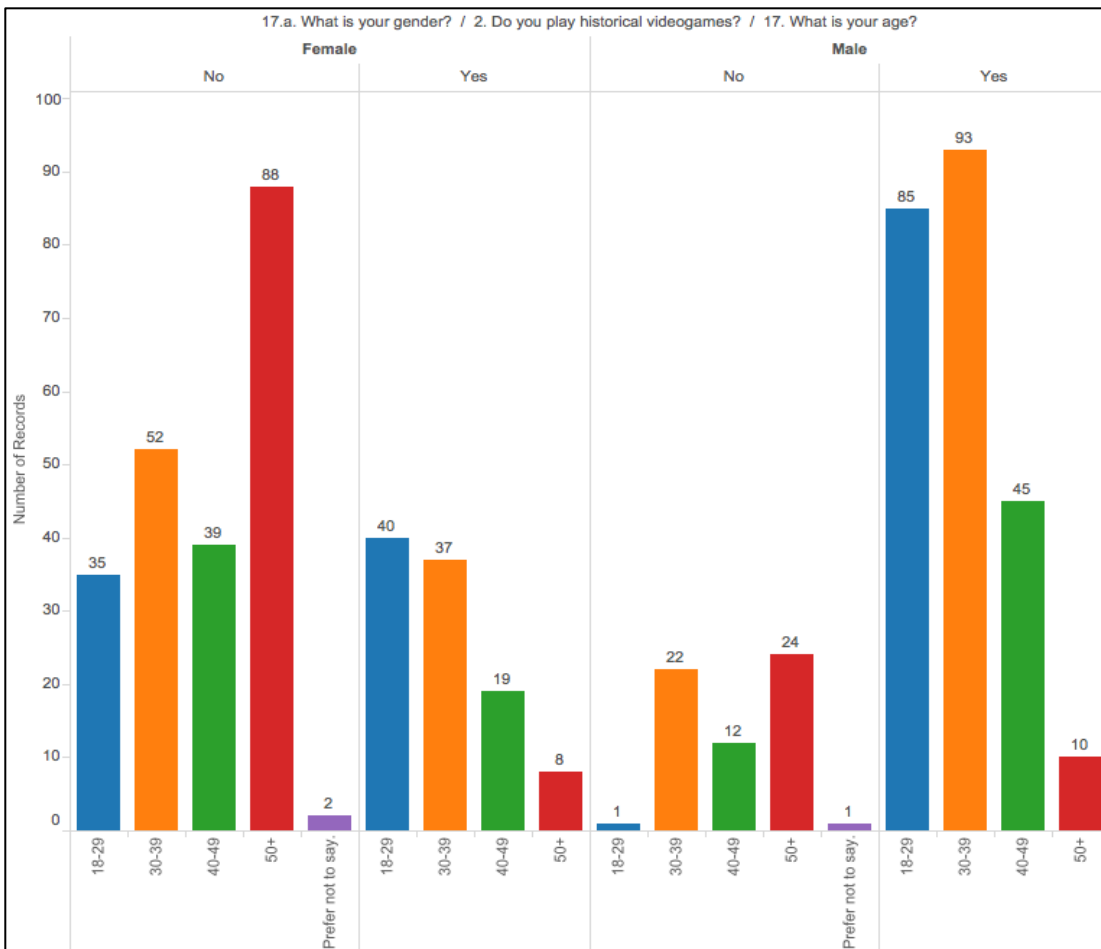


Figure 2. Graph of the Age and Gender of Respondents, and whether they play Historical Games

As can be seen in figure 2, men were the largest cohort who played historical games, where women over 50 who did not play historical games made up the largest female cohort. Male players aged between 18 and 39 are overrepresented in the data, as are females over 50 who did not play historical games. Around a third of players identified as women (c. 31%) though of these

around 74% were of younger demographics, all aged under 39 years. The findings of the survey are provided in chapter 4.

3.5. Methodological Limitations of the First Study

The first study for this research was created to generate preliminary findings, which gave a broad overview of audience and player perceptions of historical TV, film and games (see chapter 4). In the literature review, I also outlined activities that players have been seen to engage in with regard to historical games (see 2.9), activities that were not included in study one due to its broad purview of historical periods and media forms, and its purpose to generate preliminary findings. The second study of this research aimed to narrow the focus of the first study, from all historical periods to one (ancient history) and by concentrating on one medium (games) that provided opportunities for media-related activities that reflected *all* of Conole's (2013) six learning types (2.4.2).

While the first study informed the design of the second, by using different methods for data collection, I ensured I could follow-up with participants and ask them to expand or clarify their assertions, as well as assess players' emergent perceptions with games as they occurred, as opposed to relying on respondent's memory post-engagement. The second study described here and in the following chapters therefore addressed some of the limitations of the first study and also has a greater focus on learning specifically with historical games, thus complementing the broader findings of Study 1.

The second study limited the media form to historical games, and the historical periods to those that represent ancient history. Where the first study merely differentiated between informal learning and incidental learning in regard to the research questions, the second study provides more depth through assessing the specific *types* of historical knowledge gained in reference to Seixas and Morton's (2013) Six Elements of Historical Thinking (2.4.1) and also the learning *activities* players undertook in order to achieve their understanding, with specific regard to

Conole's (2013) learning activity taxonomy (2.4.2). In accordance with these frameworks, the second study investigated the research questions with far greater specificity and detail:

RQ1: What do people learn through engaging with historical games? (In reference to Seixas and Morton's (2013) Six elements of Historical Thinking);

RQ2: How do people learn through engaging with historical games? (In reference to Conole's 2013 learning typology framework).

The study below examined players' engagements with historical games and their surrounding learning practices in order to answer these research questions. Although seemingly obvious, the research questions above required that participants play at least one appropriate historical game (i.e. that represented or referenced antiquity in some way), a factor that affected the procedures employed and the online locations of recruitment. The recruitment strategy and the nature of the participants are expanded upon in more detail in 3.9 and 3.10.

More broadly, the rest of this chapter gives the methodology for the second study, defining how the epistemology and ontology is conceived in the context of this research, and how this shaped the instruments used and the methods for data collection. The narrowed focus and greater specificity allowed for the recruitment of specific types of players, with various historical educational backgrounds, and who engaged in learning activities that reflected all of Conole's (2013) learning typology. The final sections of this chapter addresses the research design, recruitment procedures, how the collected data was analysed, and how rigour was ensured in this research.

3.6. Study 2: Research Methodology

There were many qualitative approaches that were considered, some of which will be highlighted here. For some players (e.g. those who have forum discussions, or AArtists) there is an explicitly discursive quality to their interactions. As such, an ethnomethodological approach could have

been employed, in order to understand how these players use conversations to construct their historical understanding. However, focusing purely on the discursive elements ignored the experiential factors of playing the games, as well as those consumers and producers where direct communications may not take place: for example, players who merely use forums without contributing to them. Therefore, this approach was deemed unsuitable as it ignored many of the non-discursive practices that players are engaging in in relation to historical games.

Phenomenology as a research methodology has a focus on the experiences of people in relation to a specific phenomenon and how they interpret their experience of it (Lester, 1999) however the focus was too narrow for this research in that there is no specific phenomenon (or single player practice) to be studied. Furthermore, phenomenology aims to describe rather than explain, assuming a starting perspective that is free of preconceptions (Husserl, 1970). This research aimed to both describe *and* explain, and was already based on certain assumptions, epistemological standpoints and learning theories.

In a similar vein, Grounded Theory (Glaser & Strauss, 1967) has the ultimate goal of theory generation, stating data should first be collected and then theories to be developed directly from that data, where these generated theories explain certain human behaviours. Yet, the intention of the current research was not theory generation from the outset, but to better understand and explore the existing behaviours displayed by players in relation to historical games.

Due to the inadequacies of the approaches outlined above in relation to the area of this particular research, an ethnographic approach was considered the most appropriate as it is “grounded in field work that enables the researcher to study the activities of people in their everyday settings...the ethnographer is concerned with understanding the world from the point of view of those studied” (Palmer, 2001, p. 302). Ethnographies describe the overall cultural settings, the key norms and values within those settings and shows how they fit together (Rubin & Rubin, 2012) in this case the cultures of people who play historical games, their learning practices and their subsequent historical understanding.

An ethnographic approach also acknowledges the importance of context and its impact on the research, both in terms of the players' off and online contexts and also the wider social and political contexts relating to both player culture and in terms of geographically contextual nature of historical understanding. Taking an ethnographic approach meant that participants were able to describe typical occurrences of their learning and engagements with games that represent antiquity, and explain what aspects were significant to them. This approach also allowed for the researcher to observe their interactions and conversations with others within online settings, and incorporated the variety of different types of phenomena that were occurring through, and in relation to, their engagements with these games.

The ethnographic approach thus aligned with the epistemological view that acknowledges knowledge is situational and contextual, where just like every conversation or interview, every play-through of a game and the practices relating to it are unique and individual experiences. Therefore, the approach reflected this individuality and subjectivism of the topic to which it pertains, in its alignment with the historiographical approach. History is itself seen as a subjective narrative interpretation in this thesis (see 2.2) as are the players' experiences with history and historical practices with the games that represent it.

3.6.1. Addressing the Limitations of Ethnography

As with any research methodology, ethnography has limitations. The first is the time requirement, in that due to the amount of data collected (interviews, observations, etc.) this can take a great deal of time to collect, and to analyse. However, an ethnographic approach results in the collection of very rich data, hence there was no need to have large numbers of participants within the study and also the time spent studying them could be reduced (compared to other data collection methods). This addressed the issue of scale, as by having fewer participants that provided rich data, this meant that there could be a depth of understanding that simultaneously didn't risk reaching a saturation point. The concept of a 'saturation point' in qualitative research

refers to when having more participants and thus collecting more data does not necessarily lead to a greater understanding of the object under study (Mason, 2010). Morse (1994) recommends a sample size of 30-50 interviews for ethnographic research, and Bertaux (1981) that fifteen participants is the minimum for qualitative research in general. How these recommendations were implemented is outlined in 3.9. Another potential limitation of ethnography is one of reliability, in that as a singular researcher there may be issues that the research may not be reliable. How rigour was ensured in the research is outlined in 3.13.

This research aimed to investigate particular types of practices (the different learning activities of players of historical games) and their associated contexts (off- or online). It is thus important to identify the types of participants that this study recruited in accordance with their practices and contexts in more depth than previously provided (2.9) to detail the methods of data collection more specifically.

3.7. Research Design: Phase 1

This section outlines the methods employed for the first phase of the study, where the nature, composition and recruitment of appropriate participants are outlined. Three different methods for the study were used, as a fundamental tenet of ethnography “is that multiple methods should be used in any investigation and, in particular, that interviews are unlikely to be productive by themselves” (Walford, 2007, p. 147). The three methods employed were 1) solicited diaries, with 2) pre- and post-interviews immediately preceding and following the diary period, combined with 3) observations of participants’ written interactions in online environments, when applicable. The research participants and their specific contexts within the study are outlined in the next section.

3.7.1. Participants

3.7.1.1. Consumers

In relation to Conole's (2013) framework, some players – referred to as 'consumers' - engage only with (some/all) of the first four learning activities: assimilative; information handling, communicative, and experiential (see 2.9.1). However, neither learning framework (Conole, 2013; Seixas & Morton, 2013) used in this research takes into account the prior knowledge of the player, in terms of how much formal historical schooling they have, or do not have, or how their formal knowledge (or lack thereof) impacts their perspectives of historical games. This may in turn affect their surrounding learning practices with these games, so it was necessary to assess how these player practices (i.e. those with a formal educational historical background) may be similar to or different from those players without a prior formal knowledge.

Two consumer groups were considered to represent these different attributes: those that do not have a formal qualification or education in a historical (or specifically ancient) subject, and those that do. To reflect these attributes, one group of participants did not hold formal qualifications in a classical or historical subject, nor had worked in fields where historical knowledge was expected or required. These participants are referred to in the following analysis as 'non-history consumers'. Limiting the influence of formal historical education allowed for a more direct understanding of any knowledge obtained from the games themselves, and the learning processes that they carried out in relation to them. Conversely, a second set of participants were recruited on the basis of their formal knowledge and education in a historical subject, referred to as 'history consumers' in the analysis in chapter 5.

These groups were identified and categorised on the basis of a screening questionnaire, outlined in section 4.5 (see also Appendix B). Apart from these two characteristics, other demographic indicators (age, gender, time spent playing etc.) were as diverse as possible to try and obtain an array of differing perspectives. These two types of players (with/without a formal historical educational background) are representative of the consumers of these games.

3.7.2.2. Producers

In relation to Conole's (2013) framework, players can engage in tasks that do not include the *productive* and *adaptive* aspects of her framework, known here as consumers. Players that do engage in these *adaptive* and *productive* learning activities (producers) were identified (see 2.9.2). Modding is an *adaptive* activity, whereas writing AARs and creating LetsPlay videos are *productive* activities. Players who engaged in these *adaptive* and *productive* activities with reference to historical games (referred to collectively as 'producers') were necessary to recruit to reflect these different types of learning activities. The participant sample outlined were those groups that were best placed to answer the research questions, in terms of the player practices outlined in previous sections. Rowley refers to this as Purposive Sampling, "in which respondents are selected on the basis of the groups that your research addresses" (Rowley, 2012, p. 264).

3.7.2. Initial (Pre-diary) Interview

Interviews are used to obtain more detailed information about a topic than can be obtained from a survey or questionnaire (Adams & Cox, 2008) and for "gaining insights into or understanding of opinions, attitudes, experiences, processes, behaviours, or predictions" (Rowley, 2012, p. 261). As a survey was actioned in Study 1 of this research process, using interviews allowed a deeper understanding of players' conceptions specifically of the ancient world through games, as well as what learning activities they had engaged in previously and what historical understanding was gained as a result.

Although face to face interviews were preferable, due to the potential geographic diversity of players recruited from online contexts, video interviews were considered to be the most practical approach. Using video interviews can remove some of the potential interviewer bias (Bryman, 2001) and although some of the richness of a face to face interview may be lost, it was still a better option than email interviews, which have similar limitations to questionnaires (Rowley,

2012). The initial interviews were carried out using the 'Zoom' video conferencing software, which allowed the recording of the interviews as standard and stored the recording on the local computer, thus complying with Data Protection requirements (see 3.11).

The initial interview was used to establish some context about the participants, i.e. their educational background, their online identities (e.g. handles or forum names), and genres/titles of digital games they played representing ancient history. There were 7 open questions developed for the initial interview, inspired by the questions implemented by Iacovides (2012) in her diary study assessing informal learning with games⁴. For the purposes of my research, the questions were adapted and refocussed with specific reference to the RQs outlined above, relating to the product and processes of historical learning. The questions and the justifications for their inclusion are outlined below:

1) What can you tell me about your experiences with games that represent ancient Rome?

This question was used to acquire some context about the participants' previous engagements with historical games, and their motivations for doing so. This was in terms of whether they play alone or with others; why they play these types of games (e.g. genre, historical setting, etc.), and what they liked or disliked about them. Understanding these background elements and motivations was important as their prior experiences could affect the subsequent learning processes (RQ2) and also impact the learning gains (RQ1).

2) What can you tell me about the communications you've had in relation to these games?

This question specifically addressed RQ2 in terms of communicative learning processes, though it also allowed for players that used online environments (e.g. forums) to be identified, as well as the different sites or platforms they used to be established and investigated further. For the producer groups, this included where they were likely to share their works (e.g. forums, YouTube,

⁴ Iacovides provided feedback on the first iterations of the interview questions and diary, so she both inspired and assisted with the research design, for which I am exceedingly grateful.

etc.) and to ascertain the types of feedback they had previously received from other users.

Establishing from the outset how participants communicated about their game or related experiences helped to discern in what ways their participation in these communities may enable learning.

3) What kind of activities do you engage in that relate to games that represent ancient Rome, or to the historical content in these games?

This question again pertained to RQ2 and was inclusive of all the learning tasks of Conole's (2013) framework, but had a particular focus on the assimilative and finding/handling information learning activities. For example, did they look up the game or historical content online? Did they seek play strategies in forums? Did they read books, watch fiction TV shows or films, or documentaries? Including this question allowed exploration of participant's existing activities with the games, and also provided more context about them as a player.

4) Why do you engage in those activities?

For example, did participants' engage in information seeking due to a game's perceived (in)authenticity? What sites did they use/trust and why? How much are social interactions a defining factor for learning activities, particularly for the producers? This question helped assess participants' motivations for the learning processes that they engage in, helping answer RQ2. Conversely, the types of activities they didn't engage in, and their motivations for *not* doing so, were ascertained.

5) How would you describe your knowledge of ancient Rome, in terms of what you've learned from the games you've played?

This question allowed participants to reflect on their previous gameplay experiences and to outline what types of historical knowledge (RQ1), if any, they remembered having learned from experiencing a game's content in general terms. This question also allowed insights about how useful they perceived games to be as tools for historical learning, and the types of things they cited.

6) How would you describe your knowledge of ancient Rome (from any source)?

This question was not included to assess their 'actual' knowledge about ancient Rome (as this research assesses subjective perceptions rather than objective 'fact'), but instead their self-perceived knowledge: the types of things they felt they already knew. This provided a baseline of their self-reported pre-existing historical understanding, in terms of what types of historical knowledge (RQ1) the participants had gained from sources outside of the games (such as other media or written text), and how they came to this knowledge (if known). Having this context allowed a better understanding of their experiences with the games and their surrounding activities, to see how the activities undertaken during the course of the data collection phase may have added to their knowledge.

7) Is there anything else you would like to tell me?

This question allowed participants to expand upon previous answers, or to raise aspects of interest with the researcher they felt may be relevant.

The same questions were asked of each participant to allow a measure of comparability. However a semi-structured approach was adopted as it allowed for both parties (i.e. interviewer and interviewee) to expand upon any assertions that were deemed remarkable or important, and also so the interviewer could take more of a productive role "as a knowledge-producing participant in the process itself, rather than hiding behind a preset interview guide" (Leavy & Brinkmann, 2014, p. 286). The initial interviews also functioned as a means to provide guidance to participants in

how to use and complete the diaries relating to their gaming and learning practices, outlined in the next subsection.

3.7.3. Activity Diaries

As stated, interviews alone are unlikely to be productive in terms of ethnographic research (Walford, 2007). Hammersley (2006) also states that ethnography must include some kind of participant observation to be a 'true' ethnography. For these reasons, the use of diaries was adopted as one of the methods for this study. The games played by the participants were played in their home, where it would be both logistically impossible (and often inappropriate) for me to be physically present to observe their practices. The use of diaries allows for participants to observe and examine their own experiences, openly recording their perceptions, opinions and feelings (Hall, 2008). Diaries also allow participants to reflect upon their learning, encouraging them to outline their own findings and investigations, effectively making the participants co-researchers (Mackrill, 2008). Diaries can be used so that participants carry out reflective observations on their learning practices, in lieu of the researcher observing their behaviours.

The diary method lent itself well to this research as their use aligned with both the natural contexts (i.e. the home) that these games are most commonly played in, as well as the learning that takes place as a result of the engagement, as it occurs. This means that diaries address the "retrospective recall problem" (Mackrill, 2008, p. 12) where participants will have a record of their learning, some of which may have been forgotten if using interviews alone. This also addressed the problem with respect to the first study of this research, where participants were asked about their experiences post-engagement with the media rather than contemporary with it.

However, a fundamental limitation of diary methods is the propensity for participant fatigue and high dropout rates, due to the increased amount of effort required from participants (Kaun, 2010; Mackrill, 2008). In my research, this was addressed in two ways. The first was by offering the participants an inconvenience allowance (a gift voucher from a popular online retailer). Secondly,

the researcher made efforts to ensure that the participants remained motivated by maintaining constant personal correspondence with them, which was found to have increased motivation and retention of participants in earlier diary studies (Jones & Woolley, 2015). This was an aspect of the approach that remained in the forefront throughout the design process, i.e. ways in which to minimise any potential dropouts, or their effects on the collected data.

A diary template was created, based on a modified version of that implemented by Iacovides (2012). Although Iacovides also investigated informal learning through games, her focus was on learning in terms of motivation and engagement. Therefore, it was necessary to modify her original template to reflect the RQs and the frameworks of my research, to ensure that each of the questions linked specifically to at least one of the two research questions. Respondents were asked six main questions on a daily basis where depending on their responses, it unlocked different sub-questions that allowed them to expand upon their initial answer. The diary format is provided in Appendix C, though to summarise here, the main questions asked were:

- 1) Did you play any games about ancient Rome today?
- 2) Did you talk to anyone about ancient Rome, or about games that represent ancient Rome today?
- 3) Did you use any kind of resource or view other media (e.g. TV, film etc.) that relate to ancient Rome generally, or games that represent ancient Rome?
- 4) Did you contribute to, or create, anything related to ancient Rome, or games that represent ancient Rome?
- 5) Do you think you have learnt anything today?
- 6) Is there anything else you would like to mention that you think might be relevant to the study?

Some changes to the diaries were made in light of piloting, with more details given in 3.8.

Ultimately however, the content of the diaries was used to provide focal points for discussion in the final interview.

3.7.4. Final (Unstructured) Interviews

Once the initial interviews had been transcribed, the diaries reviewed and any associated content (such as websites, media, etc.) investigated, the final interview with participants had two main purposes. The first was to allow, in light of examining the initial interview transcription, the asking of additional questions relating to the initial interview. Significant aspects in the initial interviews were sometimes inadvertently overlooked, or not expanded upon in detail due to the semi-structured approach leading a conversation in a different direction. The final interview meant there was the ability to follow-up with participants on their previous assertions, and also to ensure that I had interpreted their responses to the first interview, and their diary entries, correctly.

The second purpose of the final interview was for the participants to elaborate on their specific diary entries. For example, if a participant stated they had learned about the existence of a particular historical figure, they would be asked about where and how they learned about them, why they felt it was significant to record, and how knowledge of this figure had impacted their historical understanding. Consequently, the final interviews evolved organically from the participants' individual experiences and their diary reflections. By using the diaries as a stimulus to remind participants of the learning they had previously recorded, the nature and extent of their retention of those instances were considered to be indicative of any deeper historical understanding that occurred during the diary-completion phase.

3.8. Piloting

Three colleagues who had previous experience with digital games were asked to pilot the method for the study, however they had had little, or no experience with playing games that represent ancient history. To ensure that the method was the focus (and not their engagements with potentially very different games) they were all provided with a game called *Valiant Hearts* (2014), selected for three reasons. Firstly – the game represents World War 1 (WW1), so although not a

game representing ancient history specifically, it is still a historical game. Therefore, the questions asked in the interviews/diaries still applied (when 'ancient Rome' in the questions was substituted with 'WW1'). Secondly, it was selected as it is extremely simple to play so there was fewer issues with them learning how to play the game, unlike e.g. complex strategy games that take many hours to understand how to play them. This meant the pilot testers could focus on the content of the game itself, the learning, and the evaluation of the method. Finally, WW1 was a historical period that the three pilot testers stated they did not have much knowledge of, so the historical background of this game was assumed to provide greater opportunities for historical learning, and thus entries in their diary.

The testers participated in an initial interview conducted through video conferencing, and were provided with a digital version of the diary in a Microsoft Word document (as opposed to a paper copy, at their request) and were asked to complete the diary on a daily basis for a period of 2 weeks. Once the diaries were complete and had been returned to the researcher, they were interviewed a final time, allowing them to expand on their diary entries as well as provide feedback on the methodological approach to data collection.

There were several aspects of the method that were highlighted by all three of the pilot users. The first was that all of them stated having some kind of daily reminder to fill in the logs would have been beneficial, as many were realising late at night that the log needed completing, and consequently having to turn on their computer specifically to do so – something that relates to the second point. All the participants stated that having a way to complete the diaries on a mobile phone or tablet, or somewhere online, would have been more preferable, and would have greatly increased the ease of completing the logs. They also found the Microsoft Word diary format to have included too much empty space – especially on later days throughout the process when they were scrolling through multiple pages of questions that they had answered “no” to. This was found to be tedious, especially when questions pertained to activities that they would consistently answer “no” to (such as modding). One of the pilot users mentioned that the guidance on the types of things to include in the diaries was useful, but only at the beginning

when they were uncertain. After that they found it to be superfluous, and again found this contributed to the diaries being tedious to complete.

As stated, diary studies tend to have a high drop-out rate, so the diary format was adapted following this user feedback to ensure maximum efficiency for participants in completing them, to try and prevent non-completion.

3.8.1. Improving the Digital Diary Approach

Based on the feedback from the piloting, it was important to adapt the diary method to improve the ease with which participants could complete the diaries. This began with finding an approach to ensure:

- 1) Participants could fill in the diaries online, preferably on multiple platforms (PC, phone, tablet);
- 2) Participants could receive daily reminders to complete the diaries;
- 3) Participants were not exposed to unnecessary information.

It was also considered practical to include a way that participants could fill in completed diaries on a daily basis, so if they did drop out midway through, there would be completed diaries up until that point, rather than with the original diaries where up to a week of entries could be lost.

Although there are online platforms that are designed specifically for keeping diaries, many of these are not free to use. Furthermore, they still involve participants using new software that may become inconvenient for them, perhaps even more so if on a mobile phone. This is similarly true with online blogs: although free sites exist, if blogging was not a regular part of the participants' routine, this might have caused problems not only with the number of entries made but also might have increased the risk of non-completion. For these reasons, digitising the diaries was narrowed to two potential approaches: via email; and via an online survey platform (Bristol Online Surveys, 'BOS', for which the Open University has an institutional subscription).

Email diaries have benefits in that they are fairly ubiquitous and easy to use, and don't require a third party software or user login. Everything is already time and date stamped, and it is clear who the participants are. Timed emails could also be sent to ensure participants receive the questions at an appropriate time for them to complete. However it still meant that participants would be writing "no" or "NA" (Not Applicable) under particular questions, and also that the question guidance would need outlining in full on every email, which may be repetitive (as it was in the paper diary). It also meant that it could only be sent, and replied to by email, and it also could not be assumed that all participants use/respond to email on their mobile phone. There were also logistical factors to consider, such as the extra time needed to collate participants' emails ready for analysis, as well as the formatting differences between the participant's email content.

The second option was using a survey platform (BOS) to create a digital version of the diaries, where participants could be provided a link on a daily basis, by a method of their choice (email, social media, text message, etc). This would similarly be time/date stamped, and could be used on multiple platforms (mobile; laptop), and although would require following a link and potentially logging in at least the first time, meant that participants would only be required to write text if they answered "yes" to the questions (so participants would just select a button that says 'no' if it's not applicable). It also meant that the question guidance could be accessed if desired (using the "More info" function), and not repeated unnecessarily.

Having narrowed the diaries into these two potentials (emails and online surveys) I spoke again with the pilot testers to establish what their preference would have been. One said that although they check their emails regularly even late into the evening, they considered themselves unusual in this respect and that most people wouldn't be that diligent, and even be inclined to use email on that regular a basis. Another pilot user echoed this assertion, and also added that having a reminder sent by timed email, or even better on social media with the link would be useful, and having radial buttons would be more preferable than having to write "no". Even though the respondent would have to log in the first time, they said they would prefer this to doing it by email which was associated with work for that particular pilot user. On this basis, and due to the

ease of completion, they stated that the survey option was preferable, as it addressed the limitations of the paper diary alone, as well as many of the constraints of the email diary.

Consequently, an online diary-survey was created, with the same questions as the paper diary, but incorporating the feedback from the piloting, i.e. the radial yes/no buttons with text boxes appearing only if participants selected 'yes'; 'more info' options for each question so participants were not reading superfluous text but could still access guidance if required (see Appendix C).

There were also other practical aspects to consider, such as having one definitive survey would mean participants entering identifying information about themselves in order for the researcher to tell apart their responses. This may have meant participants repeating this information over and over, possibly becoming fatigued by this repetition and increasing the risk of dropouts.

Additionally, having all participants filling in the same survey would have made it difficult to keep track of any gaps, or dropouts as they occurred. For these reasons, an individual survey was created for each participant, which was password protected. This ensured their anonymity, while also preventing the (however unlikely) event of unsolicited responses. Additionally, this meant that all responses from one participant were in the same place, making the subsequent collation of the data easier for analysis.

3.9. Data Collection Procedures

As stated, there are different learning processes that historical game players undertake dependent on their main engagement with the game. If their focus is the play experience itself, these players are known as consumers, however if their experience also includes a creative, productive or adaptive quality, then they are referred to as producers (see 2.9). The different qualities of these groups' respective learning processes with the games were felt to make interesting points of comparison due to their different motivations for learning and their activities in doing so. This section outlines how these different types of players were recruited, and how the methods evolved in light of these different procedures.

3.9.1. Recruitment: Consumers

The screener survey (Appendix B) was the first stage of the recruitment process, functioning primarily as a means for potential participants to express interest in participating in the study, and giving them details about what this would entail. Secondly, it was used to collect contact and basic demographic information. Finally, the recruitment survey was used to ensure participants were over 18 (for ethical reasons) and also to identify what groups participants fell into in terms of their gaming/learning practices in relation to historical games (consumer/producer, with/without historical background). The BOS survey was constructed and the link to it was distributed in suitable online locations (such as game forums, respondents from Study 1, social media, and mailing lists).

The participant groups were predefined as follows:

Consumers: participants with little/no formal classical schooling; participants with a formal educational background in a classical or historical subject.

Producers: AAR writers/LetsPlay video makers; modders

Many of these groups (especially players who use forums, and the producers) are only accessible online, so this was considered a pertinent location to distribute the recruitment survey. The first stage was distributing the recruitment survey across a variety of game forums that focus on games that represent ancient Rome⁵. Additionally, an email was sent to the respondents of Study 1 who had provided an email address asking to be kept up to date with the research. The first study received responses from 621 people, including historians, classicists, as well as 341 respondents who reported playing historical games (see Chapter 3). An email was also distributed

⁵ This included Total War Centre (www.twcenter.net); Paradox Game forums (<https://forum.paradoxplaza.com/forum/index.php>); Steam Discussion Forums (<https://steamcommunity.com/discussions/>); and the Official Total War Forums (<https://forums.totalwar.com/>) though in the last, my post was removed as it was deemed “soliciting”, presumably due to the incentive offered to players to participate in the research.

to several mailing lists with relevance to the research⁶. Finally, a link was distributed on social media – in various Facebook groups with large membership⁷, and further shared by friends who have experience either with games, or with research. The link was also distributed on Twitter, where key Twitter users with significant numbers of followers were targeted, and requested to share the link. As an example, the Roman historian Mary Beard known from television was asked to retweet the link, and consented to do so.

3.9.2. Contacting Participants

The survey was open for 8 weeks between 22nd February - 17th April 2017, in hope that this allowed ample time for even infrequent forum users to see the recruitment post. In this period, 120 respondents had completed the survey. However, 27 were excluded on the basis that they had not provided an accurate email address, the games they cited were those that did not feature enough specific classical history (such as the *Civilization* series, see 2.10.1 for the reasons this title was excluded) or they had stated “no” to playing games about ancient Rome. The latter was attributed to either a misreading of the survey front-page or of the Twitter distribution of the link – in that it may have been perceived that the survey itself was the research, and not for recruitment services (though 1700 people got to the first page of the survey, and Twitter analytics show 908 views and 78 retweets).

In order to align with Bertaux’s (1981) assertion that a minimum of 15 participants in qualitative research and Morse’s (1994) recommendations that ethnographic studies should have 30-50 interviews (see 3.6.1) it was necessary to have at least 15 participants complete participation in full, that between them had all the different aspects (Consumers: History/non-history; Producers) required by the research questions. Due to the design of this research, this would result in 30

⁶ The Games Research Network (Gamesnetwork@uta.fi); Media, Communications and Cultural Studies Association (MECCSA@jiscmail.ac.uk); Classicists (CLASSICISTS@liverpool.ac.uk).

⁷ Digital Games Research Association (DiGRA) Student Group (<https://www.facebook.com/groups/digrastudents/>); The Player of Games (<https://www.facebook.com/groups/playerofgames/>); Historical Game Studies Network (<https://www.facebook.com/groups/1400379086948140/>).

interviews from 15 participants, in addition to the data collected through the diaries. However, these numbers did not account for participants dropping out of the study, where at least 20% is normal and it is recommended to recruit a third more participants than required to offset dropouts (Santafe, 2011). As such, a decision was made to aim to recruit 20 participants in order to combat this potential outcome.

Of the remaining 93 respondents of the 120 who had responded to the recruitment survey in total, 54 had no background in a historical subject, and 39 stated they had a formal schooling specifically in classics, or a related subject. 24 were selected based on the activities they reported engaging in (i.e. consumers/producers) though otherwise were selected to ensure diversity in age, frequency of play per week, frequency of online forum use, and communication (often > never). Unfortunately, only two out of the 120 initial respondents identified as female and neither went on to participate in the study. This meant there was no diversity in gender as all respondents who went on to participate were male, despite my best efforts. The implications of this gender disparity are discussed in section 7.3.

Although 15 of the 24 respondents contacted replied to the initial email confirming they were interested in participating, only 8 continued to full participation in the study (2 had a change of circumstance; 5 became unresponsive). The participation was carried out asynchronously, so the 3 week diary period began immediately after each individual participant's initial interview, which varied in start time. 3 of those who consented to participate in this first phase of recruitment had a formal background in a historical subject, and 5 without such a background. Therefore, the second phase of recruitment focused on the 54 respondents who said they had no such formal background, and on respondents who stated they engaged in *productive* or *adaptive* learning activities. This ensured that producers and both types of consumer (history/non-history) were adequately represented in the research.

Emails were sent to all 54 non-history respondents and 5 additional respondents with a formal historical background to establish whether they were still happy to participate. Although most did

not respond, some did to say that although they were happy to participate, they did not possess a computer with a camera, making them unable to carry out video interviews. Some also expressed concerns with having video interviews in general, as they stated they were rather introverted. A conscious decision was made at the outset of the research to use video conferencing to try and maintain some of the richness of face to face interviews. However, based on the feedback from the respondents who could not, or did not want to use this approach, in the second phase of recruitment, participants were told that they would be able to participate via email interviews if the video conferencing caused an insurmountable barrier to participation. On this basis, an additional 9 respondents agreed to participate. However, only 3 returned the consent forms and went on to fully participate in the study.

Based on the initial responses to the recruitment survey, there were 8 participants with no formal educational background and 5 players with at least some background in a historical subject, ranging from Latin language A-Level (equivalent) to a PhD in archaeology. However, through the course of the initial interviews with two of the participants it became apparent that they had some formal background in a historical subject (i.e. had completed the first year of a history degree) so they were still attributed to have a formal historical background and re-categorised accordingly. The participants recruited in the first phase are given in Table 3.

Table 3. "Consumer" group and their background information, based on the information collected from the recruitment survey (Age, Play frequency, Formal qualifications) and expanded with details collected during interviews (Historical Background and Level). All names given are pseudonyms. *Email Participants					
Participant	Participant Designation (History/Non-history Consumer)	Historical Background and Level	Age Bracket	Nationality	Frequency of Play (Per Week)
James	'History Consumer'	Classical History (Undergraduate Level)	45-54	British	Less than once p/w
Phillip	'History Consumer'	History (Undergraduate Level)	18-24	British	Daily
Calum*		Classical History	25-34	British	1-2

	'History Consumer'	(Undergraduate Level)			
Aaron	'History Consumer'	Archaeology (Post-Graduate Level)	25-34	British	Daily
Darren	'History Consumer'	History (Post-Graduate Level)	35-44	Irish	1-2
Felippe	'History Consumer'	Latin (Further Education/ UK A-Level Equivalent)	18-24	Spanish	3-4
Mark	'History Consumer'	Latin Further Education/ UK A-Level Equivalent)	25-34	American	Less than once p/w
Symon	'Non-history Consumer'	No Formal Historical Qualifications	18-24	Ukranian	1-2
Jose*	'Non-history Consumer'	No Formal Historical Qualifications	25-34	Argentinian	3-4
Gareth*	'Non-history Consumer'	No Formal Historical Qualifications	18-24	British	1-2
Danny	'Non-history Consumer'	No Formal Historical Qualifications	35-44	British	3-4
Leon	'Non-history Consumer'	No Formal Historical Qualifications	25-34	Belgian	1-2
Pete	'Non-history Consumer'	No Formal Historical Qualifications	35-44	British	1-2

3.9.3 Initial Interview

An initial interview was carried out with each participant, to assess their existing historical understandings and conceptions of the ancient world and perceived learning. This initial interview was additionally used to establish the types of learning processes (in terms of Conole's 2013 framework) that the participants engaged in prior to their participation in the study, their existing

contextual factors and knowledge about classical history and where they felt they had learned these elements. Participants were also informed about the diary stage of their research participation and what this would entail, and asked whether they wished to receive daily reminders to complete their diary (all but 2 participants affirmed they did) and what form they wished the reminder to take, such as a social media message, or an email.

3.9.4. Diaries

The participants were provided with a link to their personal diary on BOS and asked to use it over the course of three weeks (following the precedent of Iacovides, 2012) alongside their regularly occurring play experiences. Having the diary completion phase span 3 weeks went some ways to addressing a limitation of the ethnographic approach, i.e. by limiting the amount of time and thus volume of data collected. Although the time span can be considered fairly short in ethnographic terms (with fieldwork sometimes spanning years according to Hammersley, 2006) this was necessary to avoid unmanageable amounts of data, and also to combat potential participant fatigue (and thus increase retention).

To ensure the participants were remembering to complete their diaries (or at least maximise their opportunities to do so), they were sent a reminder on a daily basis via email, text or social media at a time of their choice (usually evening) that contained the link to their diary, so they could simply follow the link and answer the questions. Additionally, I was able to check their survey logs on a daily basis to ensure they were completing them, and also to begin the preliminary investigation of the recorded content. At the one, two and three week points of each participant's diary stage, the researcher sent an email to the participants flagging any interesting aspects that they had noted in the diaries and provided personalised feedback. These emails also assessed how they were finding keeping the diaries to see whether they were experiencing any fatigue. This feedback was implemented as previous research found that personalised feedback on diaries encouraged participant completion, in addition to more detailed and accurate participant responses (Jones & Woolley, 2015). All 13 of the consumer participants completed their participation in full, with no withdrawals from the study.

Within the diaries, participants were asked to note down anything they felt they learned through play i.e. where the game was seen as a source of learning. This was then reviewed daily by the researcher in terms of Seixas and Morton's (2013) framework. They were also asked to note any learning processes (with regard to Conole's, 2013, framework) that they undertook in relation to the game with regard to what they wished to find out and why, the format that this took (e.g. checking Wikipedia, with links to sources) and how this related to the outcome/product of the learning process. Participants were also asked to state when they make any form of online contribution in relation to these games, whether it was a discussion thread, or AAR for example, and the sites that they used to do so (see Appendix C). This allowed the researcher to observe the interactions they had with other players on said sites, and to study the communications and discussions that took place in relation to their engagements with the games. Furthermore, any responses or discussions that took place within the actual diary phase were reflected upon by the participant and the researcher alike, providing additional talking points for the final interview, outlined in the next section.

3.9.5. Final Interview

The questions for the final interviews were based on the individual content recorded by each participant as part of their initial interview and diary. Consequently, they were unique to each participant and not standardised (see 3.7.4). By the time the final interviews were carried out, the researcher had had the opportunity to transcribe (where applicable) their initial interviews, meaning that additional questions could also be asked that related to answers they had given in the first interview, allowing further exploration of points of interest. All consumer participants were provided with an inconvenience allowance (gift voucher) after their final interview, in order to compensate them for their time.

3.9.6. Evaluating Phase 1

Although there were 13 consumer players who participated in the first stage of the study, it became apparent through the course of the initial interviews that none of these players currently engaged in any *adaptive* or *productive* activities. Two participants who had formerly written AARs or created mods respectively no longer engaged in those activities. This meant that further recruitment was required to ensure that participants who engaged in these activities were represented in the research.

Upon the preliminary analysis of the consumer group's data, it also became evident that the extent to which the users had engaged in filling in the diaries had varied quite dramatically. Some recorded a sentence or two for some of the questions, and others filled out the diaries in extensive detail. Although this affected the amount of data collected, the opportunity to carry out a final interview meant even short entries could be expanded upon, so this did not necessarily affect the insights that were obtained from the participants. However some participants had very few instances of play throughout the three week diary period, meaning that the final interview was used more to expand upon aspects of the first interview rather than talking about the diaries.

The diaries had not necessarily provided as much content for discussion as originally planned. In combination with the fact that diaries can be a potential barrier to participation (in that they put a lot of responsibility on the participants) at this point, a decision was made to omit the diary component for future producer participants. This decision was a pragmatic one, and taken in order to maximise the chances of producers participating in the study – who at this stage were not represented amongst the participants. It was deemed more important in answering the research questions for the producer group to be represented in some capacity, rather than rigidly adhering to a method that, although more consistent, may have ultimately been detrimental to answering the research questions. However, in reference to consistency this meant that at least all consumer participants had completed two interviews and their diary, and all producers participated in the same fashion, i.e. via a single (albeit extended and iterative) interview, despite the adaptation in the data collection procedure, as outlined in the next section.

3.10. Phase 2: Recruiting Producers

Through the course of exploring the diaries and final interviews of the consumer players, two of the consumers had been watching a LetsPlay YouTube channel (see 2.9.2.2) managed by a player known as Legend of Total War (LoTW). LoTW's channel has over 150 thousand subscribers with some individual videos having over 200 000 views (see Appendix D). It was considered pertinent to the research questions to investigate these LetsPlay videos in more detail, as not only did some of the participants in this research engage with this media output, but thousands of other viewers similarly engage with historical games in this manner.

Furthermore, having explored engagement with LetsPlay videos from the perspective of the consumer participants, it seemed appropriate to similarly explore these videos from the production perspective. LoTW was contacted through his affiliated Facebook group to request an interview about his LetsPlay videos, to which he agreed, and the interview was subsequently carried out by Skype (as opposed to Zoom, at his request). The interview questions were based in part on the initial interviews given to consumers, but with further questions that were unique to his perspective as a LetsPlay producer.

As players who had stated engaging in productive activities (i.e. AAR writing/modding) on the recruitment survey had previously been contacted without success, I decided to contact producer players directly, through the forum in which they had recently shared or disseminated their products⁸. The 5 AAR writers who had been most recently active on the forum were contacted via direct message and asked if they would be happy to be interviewed for this research, and similarly with the 5 most recently active modders. Of the 10 players contacted directly, 3 of the AAR writers consented to being interviewed and 4 of the modders (see Table 4), and the researcher asked if they would be happy to video interviews or whether an alternative method would be

⁸ www.twcenter.net

preferable. The participants overwhelmingly requested to participate via email interviews, except for one participant who requested the interview questions be given in a private message within the forum. Once the consent forms for the interviews had been received, the producer participants were provided with a set of interview questions, the content of which is the subject of the next sub-section.

3.10.1. Producer Email Interviews: Modders and AARtists

A set of interview questions were compiled for the producer participants that were broken down into three distinct sections, to reflect the questions asked in the initial and final interviews with the consumer groups as similarly as possible. The first section asked questions about the producers' context and background (general and historical), their frequency of play, and their existing experiences with games that represent ancient history. The latter was firmly based in part on the initial interview questions that the consumers were asked, outlined in 3.9.3. The second section addressed their game related communications within the forums, again based in part on the initial interview questions for the consumers, but with some expansion to reflect their particular productive online contexts (e.g. their communication experiences relating to AAR sub-forums, creative work, etc.). The final section explored their individual creative products in more detail, so addressed a particular mod (game modification), or AAR that they had shared. The final section was akin to the final interview for the consumer participants, in that it was unique to their particular product and explored why they had included certain aspects within their creative product, explanations of their creative processes, and what resources they used in the creation of said product.

As an example, *Alwyn's Andraste's Children* AAR (see Appendix D) was a counterfactual narrative AAR that addressed whether the Roman invasion of Britain could have been prevented. So the questions that Alwyn was asked related to his motives for writing counterfactually, his other narrative choices within the AAR, and what (if anything) he based his descriptions of the material

culture upon. Once the producer participants had completed and returned their answers to the questions, this allowed the researcher to ask them additional follow-up questions, sometimes three to four times based on their previous responses, to explore and expand upon their answers in more detail.

3.10.2. Evaluating Phase 2

The decision to omit the diaries from Phase 2 of the research was a practical one, and had the potential to cause for concern in terms of the comparability of the producer groups' data with the consumers. However through the course of the interviews with the producers, it was brought to the researcher's attention that these creative outputs regularly take many months (sometimes years) to complete, and often the producers could go weeks at a time without working on anything creative due to other aspects of life taking precedent. As such, this concern was negated due to the nature and format of this creative production.

Table 4. "Producer" groups and their background information, based on the recruitment survey and the information collected through the course of their interviews.

Participant	Producer Designation (Modder/AARTist/LetsPlay Creator)	Age Bracket	Nationality	Frequency of Play (Per Week)
Sir Alfthons	Modder	35-44	Spanish	1-2
Sebidee	Modder	18-24	Irish	1-2
Leonard the Great	Modder	35-44	American	3-4
Stealth 4 Health	Modder	18-24	German	1-2
Alwyn	AARTist	45-54	British	Less than once P/W
RedSlayer	AARTist	25-34	American	3-4
The Govna	AARTist	18-24	American	1-2
Legend of Total War	LetsPlay Creator	25-34	Australian	Daily

This said, the consumer groups did have a commonality, in that they all completed two interviews and the diaries. In contrast, the producer groups had carried out a single, albeit extended, interview. However, this is perhaps reflective of the nature of players, and the activities which they carry out in relation to historical games, in that the consumer players are the most common types of players. Therefore, it was perhaps more important to explore their experiences in greater depth as these were more likely to reflect the activities carried out by the greatest number of players. Conversely, a much smaller proportion of players engage in the productive/adaptive activities (AAR writing, making LetsPlay videos and Modding, see 3.13). Therefore, while I wished to incorporate and consider their perspectives in relation to their informal learning activities with historical games, the necessity of doing so at the same level of detail as the consumer groups was not considered necessary to answer the research questions. The differences in the nature and the content of the collected data were addressed in the analysis, details to be found in section 3.13.

3.11. Ethics

The British Psychological Society's (2014) 'Code of Human Research Ethics' was consulted throughout the research design process, as were their 'Ethics Guidelines for Internet-Mediated Research' (Hewson et al., 2013). An application for ethical approval was submitted to the Open University's Human Research Ethics Committee (HREC), and given favourable opinion on 22nd February 2017 (HREC/2017/2455/Beavers). However, in the course of waiting for this approval, changes were made to the research design in terms of the digitisation of the diaries. This modification was also submitted to HREC and similarly given favourable approval on 10th March 2017 (HREC/2017/2455/Beavers/2). The project was also registered with the Data Protection Coordinator on the 14/12/16.

Although personal information was collected about participants (such as contact details, nationality, educational background), information deemed sensitive by the Data Protection Act 1998 was not collected (e.g. disability, sexual orientation, etc.) so this was not seen to be an

ethical issue as participants were not at risk in this regard. Any identifying data (i.e. raw data from the recruitment questionnaire and the video-recordings) was destroyed in January 2018, with the consumer participant interviews anonymised at the point of transcription. The producer cohort were proud of their works, and preferred their online pseudonyms *not* be anonymised, a factor that was included in the consent form.

Participants were provided with a plain language statement outlining what their participation would entail, and informed verbally and on the consent form that they were free to withdraw from the study at any time up to one month after their final interview. They were also informed that the research outputs (this thesis, or other related publications) would also be freely available, and still consented to participate. The survey platform Bristol Online Surveys (BOS) was used for the diary studies as it stores all data in the UK and thus complies with the Data Protection Act 1998. All data collected by the researcher was stored and backed up on OU computers and servers, and protected by passwords that adhere to the OU's IT security policies.

The study participants were not deceived in any way, however there was a small risk that with the participants' interactions with others online, that the other users of the online forums may not have been aware that their interactions were being observed by others. However, there is no real expectation of privacy in these online settings (the terms and conditions of these forums state that users should expect to be observed) and these are publicly searchable. However, to address this potential issue of informed consent, any reference to online interactions are paraphrased and not quoted verbatim, to protect non-participating user's anonymity.

3.12. Approach to Data Analysis

The data from the interviews, diaries, and any associated content (forum threads, drawings, etc.) were collected, collated, and where necessary, transcribed. The data was uploaded to NVivo, a qualitative data analysis tool that allows for all data relating to individual participants to be

grouped together, but also for the data to be coded at certain themes amongst multiple participants where they occurred.

The approach to the data analysis utilised was Thematic Analysis, a method that allows for a researcher to identify patterns, or themes, within a dataset (Braun & Clarke, 2006). This approach also allows for the identification of instances within the data that reflected the coding categories “guided by the frequency and fundamentality of the issues raised by the users (that is, putting emphasis on those issues that occurred frequently or that were deemed of fundamental importance)” (Adams et al., 2008, p. 147). The frameworks previously outlined relating to the product of learning (Seixas and Morton’s, 2013) and the process of learning (Conole, 2013) formed the basis of the coding categories: therefore Thematic Analysis was used deductively. The deductive coding scheme used for the analysis of the data is given in table 5, with their descriptions/guideposts (GPs). The GPs were used to guide the researcher through the coding process, where if a participant appeared to demonstrate at least one of the guideposts, the evidence of this was coded at the associated theme.

The flexibility of the thematic approach means that any patterns or themes that emerge from or are identified by the researcher that are beyond the scope of the existing coding categories can be similarly added as appropriate. In this way, some codes emerged inductively from the data that were not previously anticipated, and others were still thematically linked to the existing coding categories, so these inductive codes became sub-codes. Other codes were implemented that although were not linked specifically to the existing codes, they were nonetheless linked to the research questions. For example, the “peripheral learning” code was important to include as it pertains to RQ1, and is evidence of what people learn through and with these games, even if it is not specifically linked to deeper historical understanding.

Taking a thematic approach meant that these unforeseen aspects relating to the products and processes of learning within these games could still be noted and explored. The method of analysis aligned with the outlined researcher role in the study as an interpretivist one, where the

inductive codes that arose from the data were similarly identified as being significant by the researcher. The nature and description of the inductive codes is given in table 5.1.

Table 5. The 12 Deductive Thematic codes for data analysis from Seixas and Morton (2013) and Conole (2013).

<i>RQ1 Codes based on Seixas and Morton's (2013) Framework</i>	
CODE	DESCRIPTION/GUIDEPOSTS
Historical Significance	<p>GP1. Student explains the Historical Significance of events, people, or developments by showing that they resulted in change.</p> <p>GP2. Student explains the Historical Significance of events. People, or developments by showing what they reveal about issues in history or contemporary life.</p> <p>GP3. Student identifies how Historical Significance is constructed through narrative in textbooks and other historical accounts.</p> <p>GP4. Student shows how Historical Significance varies over time and from group to group.</p>
Epistemology and Evidence	<p>GP1. Makes insightful inferences from primary sources</p> <p>GP2. Asks good questions that turn primary sources into evidence for enquiry, argument, or account.</p> <p>GP3. Asks questions through sourcing – when, why and whom.</p> <p>GP4. Contextualises sources – keeps in mind conditions and worldviews prevalent at the time</p> <p>GP5. Corroborates inference from a single source with info from other sources (including secondary) and expresses degrees of certainty about those inferences.</p>
Continuity and Change	<p>GP1. Student uses conventions and vocabulary of chronology to demonstrate how continuity and change are interwoven.</p> <p>GP2. Student describes the varying pace and direction of change and identifies turning points.</p> <p>GP3. Student describes progress and decline, nothing that progress for some people may be decline for another.</p> <p>GP4. Student uses criteria to define a period of history and explains why alternative definitions may be plausible.</p>
Cause and Consequence	<p>GP1. Student Identifies multiple short-term and long-term causes and consequences of an historical event and recognises their complex relationship.</p> <p>GP2. Student analyses the causes of a particular historical event, ranking them according to their influence.</p> <p>GP3. Student identifies interplay between the actions of historical actors and conditions at the time.</p> <p>GP4. Student differentiates between intended and unintended consequences.</p> <p>GP5. Student demonstrates an event of history was not inevitable. (SEE ALSO – COUNTERHISTORY)</p>
Historical Perspective Taking	<p>GP1. Student identifies examples of a vast difference between worldviews prevalent today and those prevalent in the past. 2</p> <p>GP2. Student exercises caution when drawing on universal human experiences (e.g. love, death, hunger) to understand historical actors.</p> <p>GP3. Student explains or illustrates perspectives of people in their <i>historical context</i>.</p>

	<p>GP4. Student makes factually accurate evidence-based inferences about the beliefs, values, and motivations of an historical actor, while recognising the limitations of our understanding.</p> <p>GP5. Student distinguishes a variety of perspectives among historical actors participating in a given event.</p>
The Ethical Dimension	<p>GP1. Student recognises both implicit and explicit ethical stances in historical narratives in a variety of media (e.g. films, museums, exhibits, books)</p> <p>GP2. Student uses his or her knowledge of historical context to make reasoned ethical judgements about controversial actions of people in the past.</p> <p>GP3. Student is cautious about imposing contemporary standards of right and wrong when making an ethical judgement about the past.</p> <p>GP4. Student makes fair assessments of the ethical implications of historical actions, and uses those to determine our responsibilities to remember and respond to the contributions, sacrifices and injustices of the past.</p> <p>GP5. Student uses historical accounts to make informed judgements on contemporary issues, while recognising the limitations of lessons from the past.</p>
<i>RQ2 Codes based on Conole's (2013) Framework</i>	
CODE	DESCRIPTION/GUIDEPOSTS
Assimilative	e.g. Read, Watch, Listen, Think about, Access, Observe, Review
Finding/handling information	e.g. List, Analyse, Collate, Plot, Find, Discover, Access, Use, Gather, Order, Classify, Select, Assess, Manipulate
Communicative	e.g. Communicate, Debate, Discuss, Argue, Share, Report, Collaborate, Present, Describe, Question
Experiential	e.g. Practice, Apply, Mimic, Experience, Explore, Investigate, Perform, Engage
Productive	e.g. List, Create, Build, Make, Design, Construct, Contribute, Complete, Produce, Write, Draw, Refine, Compose, Synthesize, Remix
Interactive/ Adaptive	e.g. Explore, Experiment, Trial, Improve, Model, Simulate

Table 5.1. Inductive Codes identified through the course of the analysis, with their associated descriptions.

Code	Sub-Code(s)	Description
Peripheral Learning (RQ1)	Gameplay/Technical	Learner demonstrates superficial/ peripheral knowledge gain (as opposed to deeper understanding). E.g. May learn about in-game elements that assist them in achieving win conditions; technical elements related to hardware/performance improvements, etc.
	History	E.g. suggests historical names, dates, locations, events but without critically approaching them in any of the terms outlined by Seixas and Morton (2013).

Cause and Consequence (RQ1)	Counter History	Sub-code of Cause and Consequence, which relates specifically to GP5 [Student demonstrates an event of history was not inevitable.] Included due to the frequency which participants were referring to counterfactual histories and narratives as part of their engagements with these games, and in respect to their surrounding activities.
Historical Perspective Taking (RQ1)	Re-enactment	Participants talk specifically about games constituting a form of historical re-enactment, allowing the player to approximate the perspectives of an historical agent. This could also refer to re-enactment experiences outside of the games.

3.12.1. Unit of Analysis

For the consumer participants there were two sets of interview transcripts, participant diaries, and researcher observations. This was a large amount of textual data to be working with, but the nature of the coding also needed to reflect the participants' expressions and evidence of a theme within the data (Hine, 2011). As such, the Unit of Analysis (UoA) had to be small enough to reflect these expressions, though large enough that the data analysis did not become unmanageable.

Taking a line-by-line or sentence as the UoA would likely result in a huge number of items coded with little coherence, and with minimal ability for the UoA to reflect the natural language of the participant or the linguistic context in which the statements were made. Similarly, taking an entire interview transcript or case would obscure specific instances of historical learning products or processes, and have produced vague results. For these reasons, the UoA was a paragraph or paragraphs where participants talked about a single idea or perception (e.g. in response to a particular question) as this allowed for themes to be identified within the wider context of the dialogue/writing in which it occurred, ensuring that nuances of the language was not lost by divorcing it from the broader discourse.

In a certain UoA of coded data there was often evidence of multiple forms of historical knowledge, or similarly a combination of processes displayed. The UoA was coded in multiple ways to reflect this. What the coding at multiple codes allowed was the relationships between these elements could be identified. Because the data could be coded at multiple themes, this

allowed for easier identification of if and when certain themes occurred in tandem. This allowed for the identification of any pre-dispositions of certain learning activities in developing certain historical skills, or the type of knowledge outcomes that occurred with specific learning activities. The prevalence and predispositions of certain codes with different participant groups (consumers/producers), cases, ages, etc. were able to be identified, allowing for comparisons to be made across, between, and within the different participant groups. This allowed for a comprehensive understanding, and comparison, of the different forms of learning that take place in relation to historical games among different types of players within this gaming community, elements that are the focus of chapter 5.

3.13. Ensuring Rigour in the Research Process

The epistemological underpinning of this research as subjectivism was the most appropriate due to the subjectivity of interpretation involved in the study of history, and players' experiences. As stated in 3.1.1, the knowledge produced by this research is similarly subjective. With this qualitative data where the participant's experience and the researcher's interpretation are inherently subjective, how does one ensure reliability and trustworthiness in the research? Different scholars suggest strategies that ensure and demonstrate such rigour, which are subsequently outlined with particular reference to Guba and Lincoln (1989), Morse (2015), and Twining et. al (2017).

Guba and Lincoln (1989) suggested the following criteria to establish research 'trustworthiness': credibility, transferability, dependability, and confirmability. Though, these imply that there is a single truth to be defined, discovered, or explained – not a position adopted in my research. Morse (2015) instead uses the term rigour, with criteria of 'reliability', 'validity', and 'generalisability' that conforms to terminology more consistently used in social science research. However, there is commonality in the strategies they suggest for demonstrating

trustworthiness/rigour, such as thick description or triangulation. As such, despite the differences in their respective terminology, in practice their strategies for ensuring rigour are the same.

Morse (2015) suggests the following strategies for ensuring rigour in qualitative research:

- **Prolonged Engagement, Persistent Observation, Thick, Rich Description** (Ensuring *validity*, and also *credibility* in Guba and Lincoln's, 1989, terminology.)

The diary component in this study functioned as a method of observing participants within their natural play contexts. This included keeping the diary for 3 weeks, with an interview before and after the completion of the diary phase (see 3.7 and 3.9). Compared to using single interviews alone, *prolonged engagement* and *persistent observation* is demonstrated through the use of diaries, with having the participant's self-observe (as opposed to the researcher observing them) reducing researcher "observer affects" (Morse 2015, p. 1217). The final interview also allowed the researcher to check their interpretations of the initial interviews and diary entries were correct with the participants, constituting 'member checking' in Morse (2015) terms. Additionally, a final draft of this thesis was sent to all participants to ensure that I had interpreted their data correctly, and some edits were made to the findings chapter in light of their comments and evaluations. Accordingly, this demonstrates this research's *reliability* (Morse 2015) or *credibility* (Guba and Lincoln, 1989).

Providing *thick, rich description* is especially important with the unstructured diaries and interviews carried out in this research from where the most insightful data was obtained. For semi-structured or structured interviews, often interrater reliability is used to display validity as it indicates a consensus between interpretations of participant data across different coders. However, Morse notes that the use of interrater reliability actually invalidates research that uses unstructured approaches as "one interview does not cover exactly the same material as the next interview" (Morse, 2015, p.1218). She notes "[t]he use of a second coder [for unstructured interviews] will keep the analysis superficial, trivial, obvious, insignificant, uninteresting, and trite. In other words, while the use of multiple coders enhances demonstrated reliability for semi-

structured research, it invalidates research that uses unstructured interviews.” (Morse, 2015, p.1218).

Morse instead suggests that validity with unstructured approaches is demonstrated through providing *thick, rich description* of data, enabling replication and duplication and thus also demonstrating *reliability* (Morse, 2015). This ‘thick description’ demonstrates ‘transferability’ in Guba and Lincoln’s (1989) terminology, by providing enough detail (through ample participant data) to demonstrate the inferences being made that another researcher could transfer findings to another individual or context (Guba & Lincoln, 1989, p. 316). Although findings with participants in other contexts may not *generalise*, they may certainly resonate (Kuper, Lingard, & Levinson, 2008) and allow suggestions for similar phenomena in other settings.

In order to align with these strategies, the findings chapter for the second study is the most substantial in the thesis. This allowed for the inclusion of extensive extracts from the participant’s transcripts, and also a detailed analysis of why I interpreted their data in a particular way. Of course, other researchers may have competing interpretations of the extracts provided, though this is a feature, and even the beauty of, such an interpretive empirical approach, as well as a fundamental feature of historical scholarship more broadly.

Related to *thick description* is the adequacy and justification of participant sampling. Tong et al. (2007, from Twining et al. 2017) provide how sampling can be justified, such as:

The rationale for a sample: in this research based upon player’s activities with the games (i.e. producer/consumer) and the nature of their formal historical background (see 3.7).

A description of how the sample was selected: (convenience/purposive) and how participants were approached has been provided (3.7.1, 3.9.1, 3.10).

Morse suggests to ensure validity that demographic details of qualitative research should outline and justify the reasons for recruiting particular participants, without including irrelevant demographic criteria (Morse, 2008). This kind of detail echoes *dependability* in Guba and Lincoln’s

(1989) terms. The clear difference between the motivations and activities of the consumer and producer groups qualifies the participants as having distinct “demographic characteristics, or individuals from different comparison groups” (Creswell, Plano Clark, & Garrett, 2008, p. 15). The demographic tables for the consumers and producers are given in 3.9.2 and 3.10.2 respectively, along with the reasons for their recruitment in this research.

- **Negative Case analysis**

Morse (2015), Guba and Lincoln (1989) and Creswell et al. (2008) suggest that extreme/negative cases, or outliers, must be included in unstructured research to demonstrate validity (or *credibility* Guba and Lincoln’s, 1989, terminology) unlike in quantitative research where outliers are discarded. Modders, AArtists and LetsPlay producers qualify as extreme cases, with distinguishing features compared to the consumer groups. As an example, the recruitment survey (Appendix B) found 88.3% of respondents said they never made mods for games. Although this survey received only 120 responses, this figure is indicative of the rarity of these activities amongst players.

Global statistics provide more evidence for the infrequency of such activities. The ‘Nexus mods’ community is the largest mod community online (Nexus Mods, 2019). It has over 17 million members (i.e. those that have subscribed to the site) and 218,928 mods available for download for various games, created by 91,360 members (modders). This said, membership isn’t required to download mods, where mod files have been downloaded 3,132,222,530 times (correct on 7/5/19). The enormity of these numbers demonstrates the prevalence of mod use by players (<3 billion downloads) with a relatively small proportion of the 17 million site members (91,630) who mod games, accounting for around c.0.5% (0.539%) of the site’s membership. Therefore, the modders in this research consist of extreme cases of historical game players, where these outliers are of special interest as they provide particular insights unable to be obtained elsewhere. This was why their inclusion in the sample was so important, and incorporated into the research design and (purposive) sampling accordingly.

Participants with opposing or competing perceptions have been included and described to the same extent as those with perceptions in alignment, to express different viewpoints. Although all participants' interpretations were different, there were overlaps in some of the themes even if their assertions were reached in different ways (e.g. *experiential* vs. *adaptive*). By investigating the cases where there were overlaps, but also noting the negative cases the differences between participant's assertions provides a greater understanding of the phenomenon as a whole and "is a critical analytic strategy for the development of validity" (Morse 2015, p. 1215). Twining et al. also suggests that a convincing analysis explicitly seeks out counter examples and rival interpretations (2017, p. A7), emphasising the importance of these approaches to recruitment and analyses across many domains of qualitative research rigour.

Details of non-participation has also been provided, with all 13 consumer participants completing their participation (3.9.2) and all 8 producer participants (3.10.2). All participants were intrinsically motivated by ancient history, which although cannot be *generalised*, nonetheless allows for an understanding of potential, or the types of learning that can happen with these games, that may resonate across other contexts.

- **Triangulation:** to enhance validity (Morse, 2015) or *credibility* (Guba and Lincoln, 1989)

Hammersley outlines three interpretations of triangulation, where the first and third have "the assumption that there is a single reality whose characteristics can come to be known via the use of different data sources, methods, approaches, etc." (Hammersley, 2008, pp. 24–25). This is not a position adopted in my research. Hammersley's second interpretation rejects the idea of objective knowledge, so it is this conception that has been used. Through rejecting that there is an objective reality, this highlights diverging perspectives, recognises the situated nature of accounts, and also rejects the idea that the researcher "should adjudicate amongst informants' accounts in terms of their truth" (Hammersley, 2008, p.25). As Hammersley suggests, "the goal is to put, and to keep, methods and epistemologies both in tension and in question, along with throwing doubt on any idea that one or other approach is correct, or that the differences

between them can be overcome. We might call this ‘postmodernist triangulation’” (Hammersley, 2008, p. 30). Hammersley’s definition of postmodernist triangulation thus aligns with the approach to history and the epistemology and ontology of this research, in the belief that there are multiple, subjective and relative truths and a variety of (sometimes competing) interpretations and perspectives, both in terms of the participant’s interpretations but also the researcher’s inferences from their data.

In these interdependent ways, the study design, participant sampling and recruitment, and the approach to analysis, all demonstrate rigour, through having a direct relationship with the epistemological and ontological underpinning of the research. These therefore align with Twining et al.’s (2017) advice in reporting qualitative studies:

“[t]he critical issue is to be clear about one’s underpinning theoretical stance, and ensure that there is explicit alignment and consistency between your theoretical stance and your approach, as well as within the approach and thus between the methodology, design, methods, instruments and analysis” (Twining et al., 2017, p. A4).

The following chapter thus outlines the findings of the second study, in accordance with these strategies for ensuring rigour in this research.

Chapter 4. Study 1: Preliminary Findings and Discussion

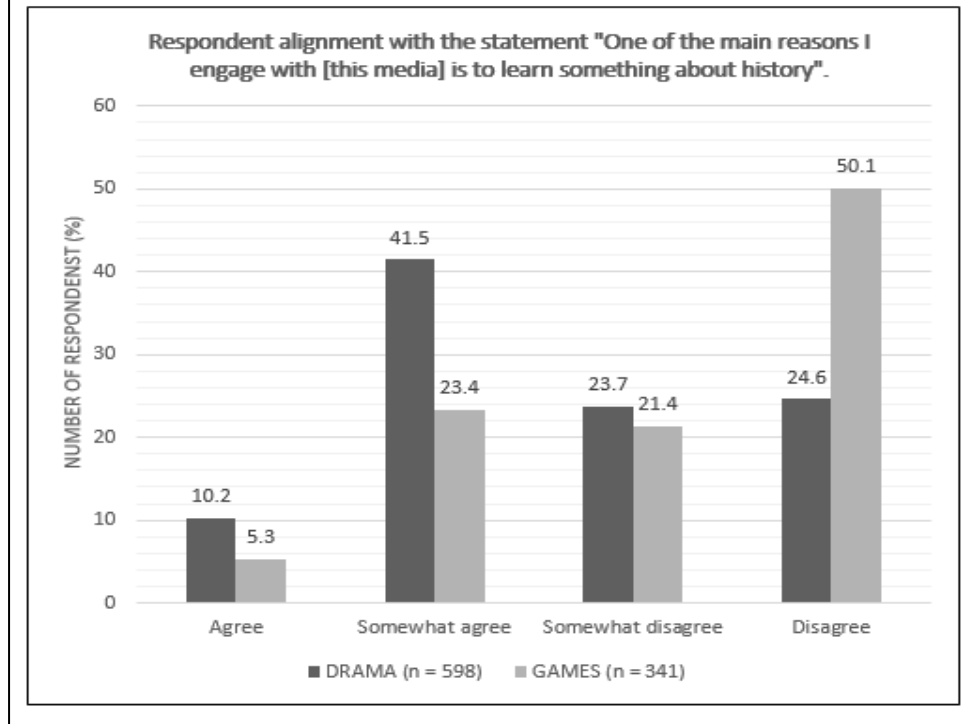
As stated in the previous chapter, the first study in this research was implemented to generate preliminary findings and to situate historical games within the wider historical media landscape. This meant I was able to compare the responses given in regard to each media form, and the respondents' self-reported perceptions of informal and incidental learning (see 2.3.1), the relationships between different media, and in particular their perceptions of the authenticity of different media and the attributes of different media forms that respondents cited as contributing to these perceptions. The findings in this chapter thus informed the method and focus of the second study, given in the previous chapter. This chapter provides the findings and discussion of the first study, where the questions about historical games and drama respectively will be considered together for the purpose of comparison, and only the answers to the questions that relate specifically to learning and authenticity are included in the following analysis.⁹

4.1. Informal Learning

For comparative purposes, the respondents' alignments as to whether they were motivated to access historical media with a specific intention of learning something about the past (see 2.3.1) are outlined together in figure 3, in reference to historical drama and games respectively. There appear to be clear differences in how people perceive different media forms for learning about history. 10.2 % of historical drama users agreed that learning about the past is one of the main motivating factors for their engagement, and 41.5% somewhat agreed. This means that 51.7% of respondents to the survey were motivated, to different extents, to watch these media with the specific intention to informally learn something about history. This is in clear contrast with

⁹ The survey asked what genres of historical games people play, whether audiences watch/play alone or with others, and extensive demographic questions, but are not included in full here. These elements have been discussed elsewhere (Beavers, 2016; Beavers & FitzGerald, 2016).

Figure 3. Comparison between Historical Games and Historical Drama in terms of motivating engagement to learn about the past.



historical games, where 50.1% disagreed that learning was a motivating factor and 21.4% somewhat disagreed. This means over 70% of the player respondents rejected the idea that they were motivated to play historical games with the specific desire to learn something from them. Although respondents were not explicitly asked to outline the reasons for their response in the free-text questions, nonetheless some did evaluate and compare their learning habits with these different media:

Certainly compared to video games, I am much more likely to be motivated in watching a 'historical' show or movie by a desire to learn something historical...
(Canadian male, 30-39)

This respondent's statement seems to embody the perspectives of the respondents' data shown in Figure 3. Although he did not provide reasons as to why he had this perception, the findings

here may relate to the perceived authenticity of the media forms/texts, reported below in section 4.4. Furthermore, the interactive nature of the game medium is seen to distort the historical content within the historical games, perhaps contributing to the attitudes of the respondents that they are a less viable form for historical learning. These formal pressures were seen to impact the historical content of games more so than TV and film, within this research data at least (see 4.4.3). This suggests there are clear differences (to these respondents at least) between media forms in terms of their perceived pedagogical potential for informal learning about history. In the words of the film historian Robert Rosenstone, “[o]ur sense of the past is shaped and limited by the possibilities and practices of the medium in which that past is conveyed, be it the printed page, the spoken word, the painting, the photograph, or the moving image” (Rosenstone, 2001, p. 59) . It appears for these respondents that historical film and TV are considered to be more legitimate media for learning and meaning-making about history than digital games: or at least that learning is more likely to be a motivating factor for their engagement with these media. This is not to say that historical games have no pedagogical value, only that a desire to learn is not necessarily why people decide to play them.

What became evident was that where respondents may have not engaged with historical media texts with an intention to learn, using these media actually prompted informal learning through information seeking behaviour associated with their experience. As these respondents noted:

Often Film or TV sparks my interest in further research. (American male, 40-49)

I'd say that historical TV/films (more than games) often cause me to google events and actually learn about the history afterwards. (American female, 18-29)

Enjoy researching the real story after seeing a film as I don't always believe the info in films to be true... (British female, 40-49)

Vikings as historical figures are quite interesting, at least to me. Watching that series ['Vikings'] makes me want to know more about their actual history. (Dutch Male, 18-29).

The first two respondents talk in general terms about film and TV motivating further research, where the latter states she is more likely to undertake information seeking with historical drama than with games. This implies she has different criteria for information seeking based on the form she engages with. The third respondent engages in information seeking in response to historical film on the basis of perceived inaccuracy, and rather than speaking of specific texts, their perception is based on the perceived inaccuracies inherent to the film *form* as a whole. The fourth respondent talks about how a specific representation in a TV show (*Vikings* 2013-present) has propelled informal learning behaviours.

In fact, 44 respondents referenced informal learning behaviours within the free-text questions, 33 of whom did so in relation to historical content in film and TV (and only 11 in relation to historical games). Some talked in general terms about their informal learning activities in relation to their historical media consumption. Others gave more specific motivations, like the second and third respondents, who wished to learn more about the historical context in which a media text was set, or to fact check aspects included in the representation.

Some respondents with an interest in a historical period would view historical media that depict what they are interested in, as a means of obtaining a visual representation for something that they have previously learned via another means (such as text). This suggests that these informal learning activities are happening in multi-directional and reciprocal ways, where audiences and players cross-reference a myriad of different representations, media, texts, and resources, drawing from them all to learn about the past. Chapman et al. termed these complex networks and activities relating to the consumption of history in all forms as “cycles of historical exchange” (Chapman et al., 2016) with cycles incorporating visual culture such as TV, film and games being increasingly referenced.

4.2.1. Multimedia Relationships

Respondents were asked whether they watched historical drama or played historical games respectively, because they had read a book or story with similar content. Figure 4 outlines their comparative responses. For the historical drama viewers, 38.1% somewhat agreed and 40.6% strongly agreed that a book or story had motivated their engagement with a historical film or TV show (78.7%). There was an increase in the strength of alignment for the historical drama responses, with these viewers more likely to agree (than somewhat agree) though the reverse is true for historical games. The players were less likely to agree than somewhat agree that a written text motivated them to play historical games, where nearly a third of the gaming respondents (31.7%) disagreed altogether. In actuality 50.7% disagreed or somewhat disagreed, meaning historical games were much less likely to be played motivated by a written text, significantly less than historical drama.

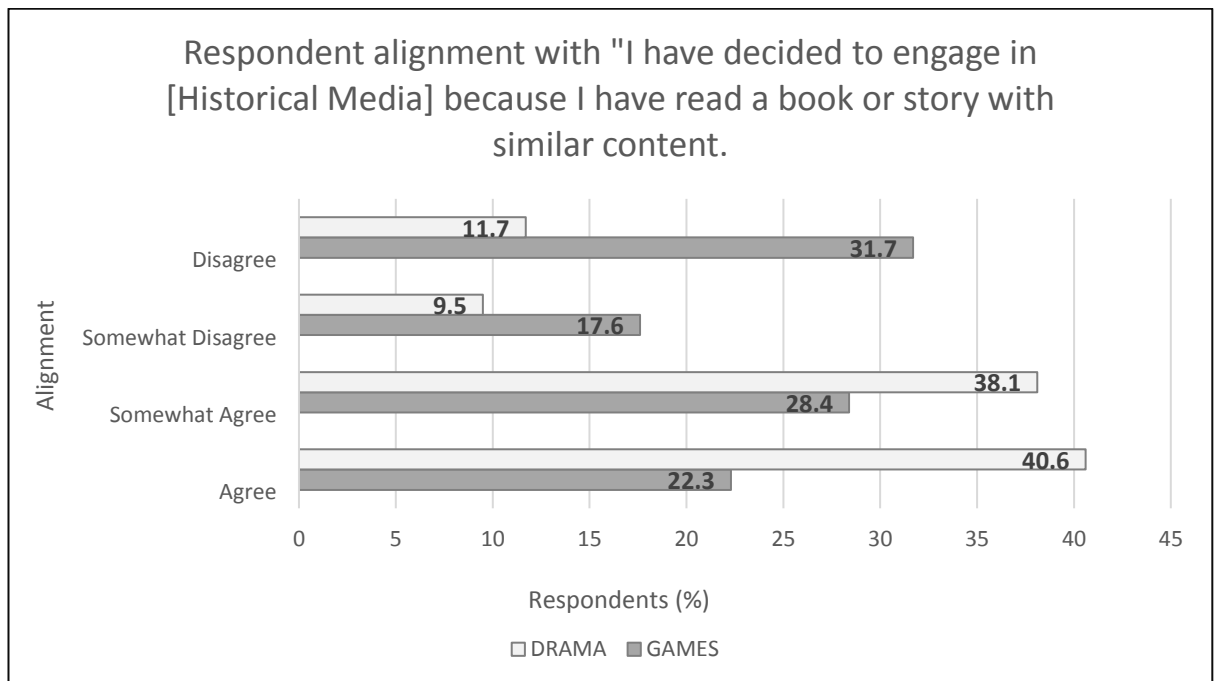


Figure 4. Responses to whether engagement with written texts prompts other media usage.

Although respondents were not asked to expand upon their responses to this Likert question specifically, some did provide some insight within the free-text responses. In particular, respondents referred to TV and film adaptations of written texts such as novels, with titles such as

I Claudius (2006) and *Wolf Hall* (2009) frequently cited. As games are far less likely to be explicitly based upon historical novels or particular texts, it was inferred that this was one of the main reasons that texts were not a motivating factor for playing them. This is in comparison with historical drama, which frequently uses textual historical fiction as the basis for a film or TV adaptation, with their popularity and frequency appearing to be key to explaining this finding. Additional data from the free-text responses regarding the relationships between text and historical drama was in direct reference to the perceived authenticity of these forms, and is discussed in detail in section 4.4.

Respondents were also asked whether one digital medium (e.g. historical games) inspired engagement with another (e.g. historical film) and vice versa, where for this question the responses between drama and games were far more comparable (see Table 6) than for previously discussed questions.

Table 6. Comparison of responses (%) identifying Multimedia Relationships

	Historical Games	Historical Drama
Agree	30.2	30.7
Somewhat Agree	36.7	37
Somewhat Disagree	15.5	18.4
Disagree	17.3	13.1
'I don't want to answer'	0.3	0.8

This would suggest that that there is little difference between historical drama and historical games in terms of their motivating engagement with other media. Again, though the free-text questions did not ask respondents to explain their assertions, some did provide relevant data, however limited. One respondent specifically stated how engaging with a game had inspired him to engage in a TV show with similar content:

[A]fter playing Assassin's Creed II (and Brotherhood) I found myself extremely interested in the Borgia-period of Italian history, and started to follow this tv show

Although assertions such as these were not numerous in the free-text answers, the numeric data in combination with responses like the above seems to confirm that engagement with one medium will inspire engagement with another, perhaps creating new learning opportunities in the process.

Where a particular history in a particular medium may inspire engagement with another, some respondents also stated that it was not a particular media form or text that motivated engagement, but that their engagement with an array of different media forms was in fact motivated by their prior interest in a particular historical period or event. For example, one respondent stated in the question asking what historical games they played and enjoyed:

Battlefield 1942..... Company of Heroes - I'd say I chose this RTS [game] over others mainly because of its setting. The WW2 setting appeals to me more than fantasy/contemporary/sci-fi settings. (Swedish male, 18-29).

This respondent stated explicitly that he would play a historical game motivated by its historical context or setting, in this case World War 2 (WW2). He echoed this assertion with reference to historical drama:

[I enjoyed] Band of Brothers - I guess I just like WW2, [it] goes hand in hand with my gaming choices I reckon. (Swedish male, 18-29).

This respondent's prior interest in a particular historical event (WW2) affects his media consumption, specifically what games or drama he chooses to engage in, indicating that peoples' individual predispositions are a key factor contributing to media usage. Building on the findings of these multi- and cross-media engagements in the first study, the second study of this research then investigated whether these engagements enhanced learning, or were driven by it. Regardless of whether media consumption was motivated by engagement with a different medium or by prior interest, the survey data also called attention to how these engagements moved beyond the media forms themselves, and

affect real-life activities.

4.2.1.1. Media Tourism

There were instances cited where engagements with one medium went further than simply motivating engagement with another, and actually transcended into other learning activities in real-life contexts:

[I enjoy playing][t]he Assassin's Creed series, which also inspired a trip to Italy to see it for myself. (British female, 30-39).

This data demonstrates how engagement with historical media, and games specifically, can motivate learning activities that move beyond the initial engagement. In actuality, 'media tourism' has become exceedingly lucrative. For example, a person can visit Rosslyn Chapel in Scotland, featured in the film the *Da Vinci Code* (2006). Rosslyn Chapel actually capitalised on the increased tourism in light of the film's release, and provided screenings of the film in combination with tours of the property. They recommended a visitor should "[s]ee the location before watching the film, tour the chapel and see if you can see spot the differences!" (The Official Rosslyn Chapel Website, 2016) indicating that the visit combining film and heritage is still clearly a learning activity, where the viewer should critically approach the film in light of the history.

Media tourism is also increasing with specific reference to games, as the data above highlights. As I have argued elsewhere (Beavers, 2016) historical places represented in games are frequently becoming more popular tourist attractions precisely because players desire to connect their game experiences with a location in real life. For example, there are now *Assassin's Creed* tours provided in Florence, which outline the history and architecture of the city while referencing the plot points of the game series (Trip Advisor, 2019).

With game tourism however, there are different facets when compared to media tourism more broadly, which move beyond simply visiting the real-life location represented in media. Game tourism is the term most commonly used for a player exploring a virtual world, such as visiting the

Pyramids in *Assassin's Creed: Origins* (2017). However, the study data provided an additional insight into how game tourism is implemented in conjunction with heritage sites, though with a different perspective to what was outlined above:

[I enjoyed playing the] Caesar franchise (since Caesar II) => for the idea of rebuilding the ruins I visited. (Belgian male, 30-39)

Here, the respondent's tourist experiences have impacted their actions within a historical game, in that they wished to replicate their real-life experience within a historical game world. This emphasises the multidirectional nature of these activities that move between the virtual and real worlds, highlighting the different cycles of historical exchange (Chapman et al., 2016) that affect, impact and even motivate different types of historical understanding. Furthermore, this data has expanded what game tourism means to different players, and provided three dimensions as to how this concept is viewed: visiting sites in real life that have been represented in a historical game; visiting sites in a game world that have some historical significance for the player; and real-life tourism experiences affecting the player's actions within a game (Beavers, 2016).

4.3. Incidental Learning

The previous section focussed on the respondents' specific intentions with regard to historical media in terms of learning, but also their activities surrounding their media use. Although for many respondents an intention to learn was not a main motivation for their engagement, other questions asked them about whether their engagement with historical media had resulted in *incidental* learning about history, i.e. they had learned something as result of engaging with a medium even though they hadn't intended to. The responses to the questions with reference to Historical Games and Drama respectively is shown in Figure 5.

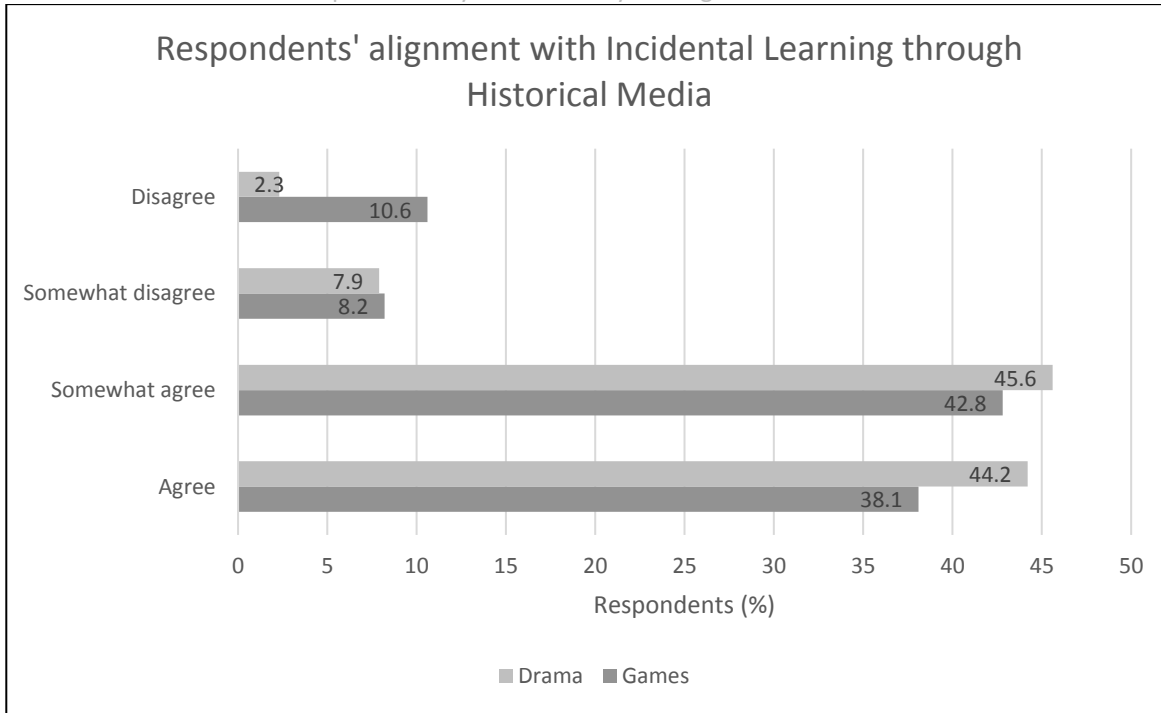


Figure 5. Graph representing respondent's alignment with the extent they felt they had incidentally learned as a by-product of their media engagement.

The findings here between historical drama and games are much more comparable than the findings with regard to informal learning, with little difference between the responses for each medium. Although respondents were slightly more likely to disagree that they learned something incidentally from historical games, nonetheless for historical games 80.9% agreed (38.1%) or somewhat agreed (42.8%) that they had learned something, compared with 89.8% (44.2% agreed; 45.6% somewhat agreed) for historical drama. This was reinforced in the free-text responses, where 49 respondents talked about instances of incidental learning, for example:

I appreciate when they [historical media] give insight into ways of living I didn't understand. e.g., the use of the sun for navigation in Vikings, or the way vikings kept slaves... (Australian Male, 18-29)

Although this respondent talks about incidental learning from the TV show *Vikings* (2013-present) in terms of the free-text data relating to incidental learning via historical drama, this respondent was one of a minority. Only 9 respondents indicated incidental learning that had taken place in relation to TV and film, compared with 28 who talked about historical games in the same way (12

respondents talked about both forms in their responses). It is, again, important to note that respondents were not specifically asked to describe their learning experiences in their free-text answers. However, what is significant is that the data relating to incidental learning were overwhelmingly obtained from the questions that asked respondents what media they engaged with and why they enjoyed doing so. This increased number of references to historical games could indicate that the learning that does occur through historical games is viewed more of a source of enjoyment for the people who engage with this particular medium – more so than with historical drama. There were just over half as many self-reported historical gamers (341) than historical drama viewers (598) so the increased references to incidental learning through historical games in the free-text responses become even more substantial when this is taken into account.

Historical games appeared to spring more readily to mind when the respondents talked about media in terms of incidental learning. This could signify that the incidental learning taking place with historical games is more memorable or remarkable to players, indicated by the increased references to this form (compared with historical drama) within the free-text responses. This would align with the Egenfeldt-Nielsen's (2005) findings outlined in the previous chapter (2.10.1) who stated that although students appeared to learn less with computer games, they did appear to retain the information better (i.e. it was more memorable) over a longer period than their experimental counterparts that did not use games.

This aspect of historical learning has caused the promotion of “learning objectives as a naturalized aspect of gameplay” (MacCallum-Stewart, 2011, p. 107). Incidental learning (also known as ‘stealth learning’) is increasingly seen in the ways that players interact with the content of virtual worlds and in the ways that these learning narratives are created through the relationship between players and developers from both within the games and outside of them (MacCallum-Stewart, 2011). The structural and formal pressures of historical games are thus providing different opportunities for learning and engagement than other historical media, perhaps

explaining the prevalence of references to incidental learning from historical games within this study.

The previous sections focussed on the responses that related to learning about history from historical media, and their surrounding learning activities. It appeared TV and film were perceived as more legitimate forms for informal learning which could be due (at least in part) to the respondents' judgements of the perceived authenticity of these forms, discussed in detail in the next section.

4.4. Authenticity

The findings relating to respondents' perceptions of authenticity (see 2.8.5) with specific reference to film and television are outlined fully in an external publication (Beavers and Warnecke, forthcoming, 2020). Consequently, this section will summarise the findings relating to TV and film, and will compare these perspectives with the perceptions of historical games.

4.4.1. Authenticity across Forms

As stated in 3.3, respondents were given a 4 point Likert question asking whether they perceived historical TV shows, films, and games respectively to be Authentic, Somewhat authentic, Somewhat inauthentic or Inauthentic. This was in order to compare these different forms based on their perceived authenticity. As figure 6 indicates, no media form was considered particularly authentic overall, with the majority of respondents choosing somewhat authentic or somewhat inauthentic in reference to each of the media.

This said, historical TV was considered to be the most authentic medium, with 59.7% of respondents who answered this question rating it as 'Somewhat authentic', with historical film a close second (53.6%) – though only 39% of respondents perceived historical games to be somewhat authentic. Where there was a gradual *decrease* in perceived inauthenticity with

historical TV and film; for historical games this trend was inverted, where there was a gradual *increase* in perceived inauthenticity.

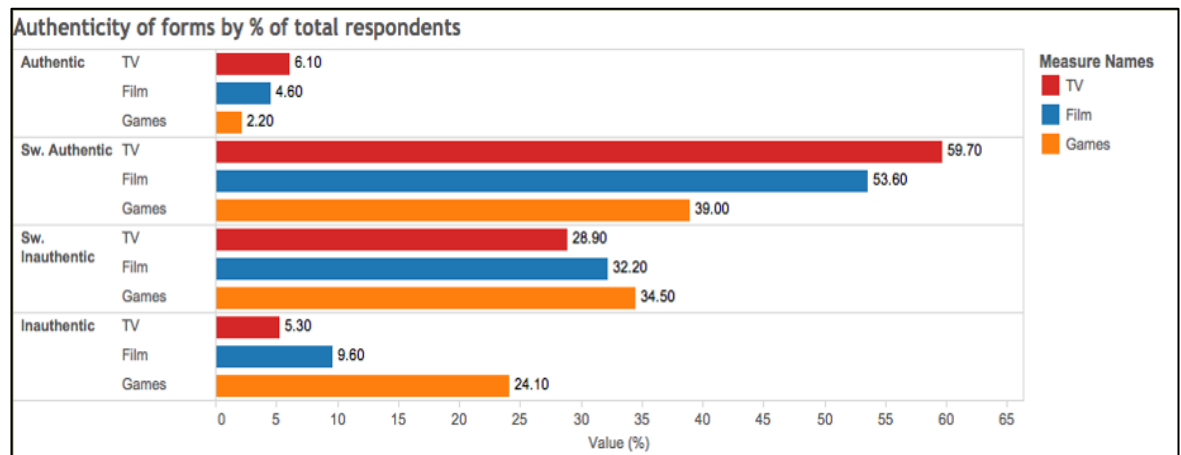


Figure 6. Graph comparing perceptions of Authenticity of Historical TV, film, and Games

However, on analysing the data in relation to each medium, although 341 respondents stated at the outset of the survey that they played historical games, 402 respondents answered the above Likert question about games' perceived authenticity. This means that 61 respondents, despite self-reporting that they don't play historical games still felt they were able to judge the authenticity of the form. 31 respondents of the 61 rated historical games to be less authentic than other media, presumably basing their judgement on a culturally or socially informed perception. Out of the 61 respondents who answered but don't play historical games, 21 had given the same response to each medium (e.g. rating each form as 'somewhat inauthentic'). This may suggest that, for these respondents at least, the media *form* may not be a factor governing perceived authenticity, with other considerations playing a larger role.

More detail about the respondents' perceptions of authenticity within these media was provided by the two free-text questions, the first asking what media texts they found highly authentic; the second what they felt was highly inauthentic, and why. A recurring theme was that over 120 respondents were unable to state a text they found highly authentic, or conversely believed all media forms to be inauthentic:

None are totally authentic, but that's fine. (British male, 18-29)

Fairly sceptical of all of them! (British female, 30-39)

The verb 'making' already implies that it's constructed. Even though you can aim to 'make' something highly authentic, it will either be a simulation or lean towards a documentary. (Dutch male, 18-29)

Some respondents did outline their reasoning for these perceptions, making similarly blanket statements about all three forms. There were two main reasons cited for the perceived inauthenticity of these media, the first that the economic motivations for entertainment meant the historical content was distorted, as these data indicate:

I think the reason is clear, companies clearly choose not to allow any historical fact to risk the commercial attractive[ness] to their stories. (Spanish male, 40-49).

Even when based on actual historical events or people that we know existed, usually the plot / overall story is tweaked to become more 'entertaining' to a modern audience. (British female, 40-49).

This suggests that there is a perceived relationship between the historical accuracy of a media text with how entertaining it is, where entertainment will override considerations of accuracy due to the financial considerations of the media. This implies that the respondents are aware of the surrounding cultural and economic pressures inherent in the production and release of these media, though they also demonstrated an awareness of how the form by which history is relayed affects the nature of the historical content within it. This was the second reason respondents felt historical media, in general, are inauthentic, as the following examples show.

Most of these media have to make some kinds of sacrifices to "authenticity" to be enjoyable. For instance, having to simplify historical processes into some kind of game mechanic/or necessarily having to fit a complicated piece of history into two hours of film and in way that can be communicated largely visually. (American male, 18-29)

TV shows and films... do not need to provide exciting game mechanics in order to be entertaining, so they are less likely to take major liberties in order to produce entertainment. (American male, 18-29)

As well as providing additional evidence for the respondents' perceptions of entertainment trumping accuracy in historical media, the data above shows their awareness of how different forms construct historical content differently. For example, the first respondent talks about narrative compression in film, where "[t]he pace is accelerated through a textual compression of a given story period into a relatively short statement of its main features" (Toolan, 2012, p. 49). Narrative compression was cited by multiple respondents though only really in relation to film, a finding that could account for historical film being perceived as less authentic as TV, given the much longer running time of the latter form (Beavers & Warnecke, forthcoming 2020). However, both respondents suggest how games, as an interactive medium, must include some kind of mechanics in them, which again are seen to distort the historical content. In order to gain more depth of understanding in relation to each of the media forms, it is important to look at the free-text data to clarify some of the broader implications related to authenticity.

4.4.2. Perceptions of Authenticity in Historical Film and Television

The respondents' perceptions of authenticity in regards to film and TV highlighted three prevalent themes. The theme that had the most numerous or frequent references in relation to film and TV was that of material culture, in particular costumes, props and sets. There were 185 references to perceived authentic material culture in film and TV, a finding that aligns with Davis' assertion that authenticity in film is "[m]ost frequently... a matter of the "look" of the past, or rather "the period look," "period props," and "period costume" (Davis, 1988, p. 271). It is similarly the material culture that visitors to heritage sites are most likely to cite as authentic (Waite, 2000). This finding in combination with previous research suggests that judgements about authenticity are based on the same criteria (perceptions of material culture) regardless of whether a viewer engages with a

representation or reconstruction of history (as in TV and film) or is viewing something at a heritage site that is actually historical.

Often however, it appeared that the material culture was the **only** aspect that respondents were able to cite as authentic, as the following data exemplify:

I feel that nearly every piece of media that I've seen that's allegedly based on history is inauthentic - though I often find costuming to be good. (Scottish female, 18-29)

Don't believe any of this media to be highly authentic apart from probably setting and costumes as I expect a lot of time to have gone into researching these details.... (British female, 40-49).

These data are typical of the responses in relation to material culture. Where respondents might state media or a particular text to be inauthentic overall, nonetheless they were able to identify individual elements that they perceived to be authentic. This indicates the nuances of how people engage with these media, in that it is not straightforward to define a text as wholly authentic or inauthentic, as a variety of different factors and perceptions are taken into account.

The second prevalent finding in relation to TV and film was that respondents often equated perceived authenticity with fidelity to a written text. There were 92 references to a TV or film text cited as being authentic because they were a faithful adaptation of a book, primary source or, more prevalently, a historical novel. In fact, the latter was overwhelmingly referred to by respondents, for example, *I Claudius* (2006), *The White Queen* (2009), or *Wolf Hall* (2009), despite the fictionalised aspects of these works. One respondent stated:

I would have to pick the Austen or Bronte BBC TV adaptations [as being authentic]. They reach a high level of authenticity and manage to stay close to the original material. (British female, 30-39)

This respondent cites particular TV series as being authentic, despite the books that they are

based upon being works of fiction, in that they do not represent actual historical events or figures. Of course, we can assume that authenticity in the TV series can be created by having accurate costumes and settings in accordance with the contemporary conditions in which the novels/series were written and are set. However, the fact remains that they are perceived to be authentic despite the fictive aspects of the source material. This would imply two things. Firstly, that when people refer to authenticity in relation to TV and films based on historical novels, they are referring to how faithfully the written texts are adapted into a different medium.

This highlights a different conception of authenticity displayed by respondents, in that even if the written texts are fictional, a film or TV representation can still be considered authentic if they adhere faithfully to the written source material. This leads to the second implication of this finding, that “the written word, regardless of how fictional the content is, is seen to possess a historical authority and is thus seen to be the most authentic means by which history can be conveyed” (Beavers & Warnecke, forthcoming 2020, n.p.). A written text, whether fiction or non-fiction, is similar in form to academic (written) history, and is therefore seen to be more authentic (Rosenstone, 1995, p. 7). As Rosenstone notes, there is an idea inherent to the study of history that is ‘a long time practice which has come to be carved in stone – the notion that a truthful past can only be told in words on the page’ (Rosenstone, 2006, p. 5). Rosenstone’s words appear to ring true with the responses in this study, where a TV show or film is perceived to be authentic if it is faithfully adapted from a written source, which in itself is already seen as authentic. This finding in respect to historical TV and film also seems to align with Coplestone’s (2016) of the elevation of written texts as more authentic.

Finally, the third finding in reference to perceptions of authenticity in historical film and

television is that they appeared to be under the influence of 'negativity bias'. Negativity bias refers to when people "put more emphasis on negative than positive information in their feelings and judgments" (Sup Park, 2015, p. 334). This has most often been empirically tested in regards to media such as the news and political broadcasts, where those that produce negative emotions such as disgust, shame or sadness are perceived to be more truthful (or authentic) than those that elicit positive emotions, like happiness (Sup Park, 2015).

It appears that historical representations in TV and film are similarly prone to negativity bias in viewers, with 87 references in the data to negative aspects of historical representation.

This manifested in the data in two ways. Firstly, this was in regards to the narrative, where tragic narratives were seen to be more authentic than triumphant narratives, as the following data suggests:

"Blackadder" is all about humour (ignoring the last minute nor so of the last Blackadder show ... heartbraking, and maybe also the most historically accurate scene of the whole series). (German male, 50+)

Saving Private Ryan... [is authentic] it brought the gory violence of war on the big screen for the first time. I remember being quite distraught by a couple of scenes in the movie. (Italian male, 30-39)

These respondents refer to media texts that represent the first and second world wars respectively. The first respondent, while initially stating that *Blackadder* (1989) is humorous (and therefore inauthentic) then makes an assertion about the last scene being historically accurate, precisely because of the poignancy of the narrative. The second talks in similar terms, specifically

equating the authenticity of *Saving Private Ryan* (1998) with the emotional distress he felt while viewing the film. In this way, the sadness some of the participants felt in response to a narrative meant they felt the media texts to be more authentic: not so much “sad, but true” – as the everyday aphorism implies – but possibly “sad, thus true” (Hilbig, 2009, p. 983).

However, this is where perhaps games may struggle to be seen as authentic for this reason, as they often have triumphant narratives. The player must have some kind of winning conditions in order to achieve victory within a game. Often these are in the form of empowerment of the player-character through improved abilities (Linderoth, 2013) where due to the interactivity of games and the necessity of a player being victorious “there is a game mechanical structure that “fits” the story of the empowered protagonist” (Linderoth, 2013, p. 25). As Linderoth notes, it is difficult to imagine even hypothetical disempowerment narratives in games, where he uses the example of the film *The Wrestler* (2008). This film tells the story of a wrestler who is past his prime, and is slowly declining in health, a narrative that would be difficult to replicate in a game form as the protagonist does not improve in abilities, but actually deteriorates. As a game, it would have to utilise other means of providing experience to players, as mechanics of increased abilities doesn’t fit within the narrative context (Linderoth, 2013).

Additionally, it can be difficult to represent some aspects of history within the game form. Some aspects of history are seen to be too controversial to represent in games as they are seen to ‘make light’ of perceivably sensitive historical issues, where the act of ‘playing’ is seen to trivialise the history. Chapman and Linderoth (2015) refer to this as the “Limits of Play” where representing these issues in games would invoke the victims involved, or allow the player to re-enact particular instances of abuse or atrocity in a way that is considered unacceptable to developers, and society more broadly. They use the example of the holocaust in WW2 games. If it is even mentioned (and often it is omitted completely) it is only referred to within cut scenes, with game developers turning to cinematic modes of representation to bypass the Limits of Play in the limited instances that the holocaust is included within a game (e.g. *Wolfenstein: The New Order*, 2014).

The Limits of Play means that games have particular properties in terms of how they represent

problematic aspects of history, that cause them to run the risk of whitewashing historical narratives (Chapman & Linderoth, 2015) by, for example, omitting the holocaust from a WW2 game entirely.

Both the difficulty in representing tragic narratives in games, combined with the constraints of the Limits of Play may account in some respects for games being perceived as less authentic in than TV and film in this dataset, as “what is easily allowable in a television series [or film] is considered unacceptable in a game” (Chapman & Linderoth, 2015, p. 148).

Following from this, the second way that negativity bias was displayed by respondents in regards to TV and film was not just in respect to the tragic elements of the narrative, but in terms of representations invoking disgust being seen as authentic, or conversely a sanitised, ‘clean’ or white-washed history perceived as inauthentic. For example, these respondents exemplify this type of negativity bias:

Vikings - not sure about the historical content but they all look historically grubby and smelly! (British female, 30-39)

The representation of battle in ... [Vikings] also brings new realistic realms of horror and gore. (British female, 18-29)

Films and TV rarely depict just how horrific fighting would have been - The Last Kingdom gets an honourable mention as the final battle does show some pretty gruesome fight scenes, but on the whole fights are depicted as being relatively bloodless and painless. (British male, 18-29)

Here we can see the first respondent, despite reporting she has little knowledge about the history behind the series, perceives that it is authentic as the representation conforms to what she expects the past was like. The second respondent specifically equates the realism/authenticity of the representation with its graphic depiction of battle, where the third comes to the same conclusion from the opposite direction: that films and TV sanitise the representation by omitting

the pain and gore that in turn makes them appear inauthentic. This was also true for other respondents, though in reference to the cleanliness of the historical representations:

[P]eople [are] too healthy and clean in the Last Kingdom, the Cornish princess was way too glamorous, riding around in finery and managed to keep her hair and make-up perfect even on the battlefield (Male, 40-49, nationality not provided)

[HBO's] Rome [is inauthentic] - all too clean (Scottish female, 50+)

Although discussing the representation of different historical periods, both come to the same conclusion: that the representations are inauthentic due to the aesthetic presentation of the past appearing 'too clean'. It appears that these conceptions of the past form two halves of the same coin: above we saw that representations that depict the dirty and gruesome aspects of the past were perceived as authentic, and here the opposite is perceived to be inauthentic.

This data has provided new empirical evidence that negativity bias is also a factor in audience judgements of authenticity, where previously the concept has predominantly been applied to political broadcasts and non-fiction media. As such, this is an original contribution to knowledge about how people perceive and assess the authenticity of fictional historical film and television. More broadly, this research has highlighted how audiences focus on material culture as a way to evaluate perceived authenticity, and also how fidelity to a written text can increase the perceived authenticity of a TV or film representation. Although these findings have been discussed above with some reference to historical games, it is nonetheless important to examine player perceptions of authenticity also, in order to compare how these perceptions align or diverge in accordance with the differences in media forms.

4.4.3. Perceptions of Authenticity in Historical Games.

In section 4.4 we saw how historical games were rated overall to be less authentic than film and TV respectively. Some reasons for this perception were outlined in relation to all media (i.e.

economic/entertainment factors, formal pressures of each medium) and in contrast to TV and film (i.e. disempowerment narratives and the Limits of Play). This section will provide more insight into these perceptions with specific reference to historical games.

The following data specifically refers to the two free-text questions in the survey, asking respondents about authentic and inauthentic media texts respectively. Of the 341 who stated they played historical games, 266 (78%) answered the (optional) free-text questions. Of the 266, 137 respondents (51.5%) did not make any mention of historical games, referring only to TV and film. This absence of references to historical games by respondents who reportedly play them suggests that games may be perceived as a different category to other media when considering historical authenticity, implied by their lack of inclusion within these responses.

This said, 129 (48.5%) respondents did refer to games when considering issues of historical authenticity, though some made generalised assertions about the form as a whole without specifying why they had this perception:

Video Games are just laughably inauthentic; it would take a very particular game to even make me think about bothering to judge its authenticity (Canadian male, 30-39)

Video games: all of them [are inauthentic]. without any exception. (New Zealander male, 40-49)

Previous sections of this chapter have suggested potential reasons for these perceptions of historical games as inauthentic, though other respondents did give more specifics about their reasoning. During the analysis of the data relating to historical games, it became clear that I was able to make a broad division in the types of games that respondents referred to, based on the formal structures and the nature of the games that were discussed. This allowed for the application of the realist/conceptual framework for historical games outlined in 2.7, where the use of these particular categories provided an analytical tool to apply to the data.

Of the 129 respondents who answered in more detail about their perceptions of historical games, 61 respondents (47.3%) talked about games in terms of their perceived *authenticity*. Of these, over half stated that (aspects of) historical games were authentic due to their representation of material culture:

Assassin's Creed for sure [is authentic], especially the later titles (Black Flag and Unity) with their photorealistic recreations of actual towns and landscapes, plus artifacts, clothing, and history. (American male, 40-49)

"Rome: Total war 2, [is authentic] it uses authentic places and structures (Brazilian male, 18-29)

In many ways, this aligns with the focus respondents displayed in reference to authenticity in TV and film, and also the visitor perceptions at heritage sites. Players also use the represented material culture to judge representations of authenticity. However, there is a small distinction with reference to historical games, in that respondents were less likely to refer to individual elements within the representation (such as costumes and props) and more to the virtual environment as a whole, in terms of the architectural features of towns and cities. Historical games often include larger environments for players to explore (such as whole cities, countries or regions) than are provided to audiences of historical film and TV, which may explain the nuances between these findings.

Where respondents discussed the authenticity of material culture, these were exclusively in relation to games that adhere to the realist simulation style. While conceptual simulations do include representations of material culture, this was not referred to as an aspect of authenticity in relation to these types of games. Realist simulations have a visual specificity and an illusion of authority that may also help to establish an epistemological authority, which may explain participants' perceptions of authenticity of the material culture in these types of games. In addition, due to the graphical fidelity of realist simulation styles, the material culture may simply be more easily compared to similar material culture seen elsewhere. The findings here in relation

to material culture are also in alignment with other research pertaining to authenticity in games, that found that the players and developers equated accuracy with visual depictions of the past, similarly aligning with realist simulations and reconstructionist histories (Copplestone, 2016).

Another recurring theme within the data were the respondents who held the belief that historical games as an entire form were antithetical to being authentic, i.e. the game medium has inherent *formal* characteristics that affect the historical content (e.g. gameplay) resulting in the perceptions that game representations are inauthentic. Although this was true of the other media also, games in particular were highlighted to be inauthentic due to these pressures. For example,

Most videogames [are inauthentic], because gameplay dynamics trump accuracy to both history and reality. (New Zealander male, 18-29)

In video games, it's almost impossible to be highly authentic, and it's usually broken down by gameplay mechanic (British male, 18-29)

As evident from the above data, the formal pressures that were seen to impact the historical authenticity of games were particularly in reference to the (perceived) demands of gameplay. This finding is also in alignment with Copplestone's (2016) study, who found that the demands of gameplay, specifically the player's agency within the gameworld "as being problematic or prohibitive to concepts of accuracy" (Copplestone, 2016). Copplestone's findings, in combination with those of this study, therefore highlight that these tensions between player agency and the authenticity/accuracy of the content are evident amongst a variety of different players.

An additional formal pressure of games that was seen to affect the historical content was the perceived necessity of games to be entertaining, as we saw previously in regard to the other media forms also.

Most videogames however are inauthentic because they are much more likely to exaggerate for entertainment sake. Games provide a greater form of escapism than films or TV I believe (British male 30-39).

We can assume that this respondent is comparing games to other media forms through his comparison of games with films/TV in terms of escapism. As such, we can also infer his meaning is that games are much more likely (presumably than TV or film) to exaggerate for entertainment's sake. His perception indicates the increased pressure in the minds of players for historical games to be entertaining that naturally distort the historical content, pressures that are perhaps less pronounced than in other, non-interactive media.

The respondent's focus on the tensions of the game form with the historical content, and the necessity of the form to be entertaining align with the previous responses in relation to film and TV, though perhaps with games these tensions are more pronounced. This appears to be due to the additional structural pressures of games (in terms of their interactivity and mechanics) but also in terms of the perceived economic motivations. Where a game can cost upwards of £50 when it is released, a film is often a fifth of the price and many TV shows can be viewed for free. This could suggest that the higher price people pay for games may mean financial considerations are more prominent in the minds of players when they make judgements about the authenticity of historical games.

Game mechanics are clearly important when players make judgements about authenticity. Though where the respondents above made generalised comments about videogame mechanics producing tensions with authenticity, other respondents referenced the mechanics of individual games being (in)authentic. In particular, 10 respondents cited the mechanics of conceptual simulations as being authentic, exemplified by the following data:

[P]erhaps Crusader Kings II and Europa Universalis IV [are authentic]? Both these games seem to try and get the "feel" of their periods reflected in how their game mechanics work. (French male, 18-29)

By comparison, only 6 respondents stated that they perceived the mechanics of realist simulations to be authentic, and 4 of these were in reference to simulator games (i.e. plane, tank, boat simulators, etc.):

World of tanks. *Very authentic. The physic[s] engine is outstanding.* (Canadian

female, 40-49)

Although the responses related to this theme were limited, some respondent's assertions that the mechanics of conceptual simulations are authentic would suggest that authenticity in games is not only created through the visual aspects of the representation (that is abstracted in conceptual simulations) but also how the game-mechanics underpin the historical content, meaning that this is a particularly form-specific aspect of authenticity.

The mechanics of conceptual simulations were more frequently highlighted as authentic by respondents, however in regards to realist simulations (excluding simulator games) the mechanics were most often perceived to be *inauthentic*. Of the 15 respondents who perceived the mechanics of individual games as authentic, 11 of these were in reference to realist simulations:

Assassins Creed- I don't believe anyone ever did that amount of parcours in the

Middle Ages (British female, 50+)

Just about any WWII multiplayer FPS [First-Person Shooter]... [is inauthentic]. The idea that you are playing this respawning supersoldier who does not have to follow orders and can jump into any tank, plane, or whatever as the spirit moves you is patently ridiculous (American male, 30-39).

Both these data typify the respondent's assertions in regards to this theme, and highlight the perceived impact of the gameplay on the content, and thus upon the perceptions of authenticity.

In *Assassin's Creed* (2007-present) the parkour mechanic is used to both allow the player to explore the landscape more efficiently in gaining a higher perspective (e.g. on the roof of a building) and also to provide the player with enjoyable gameplay. Respawning ensures the player-character's game/campaign does not end if their avatar dies, so in this way both these examples show how concessions are made in historical authenticity for the sake of gameplay. This finding, in conjunction with the data above pertaining to the perceived authenticity of conceptual simulations' mechanics point to how different genres of gameplay imply different tensions with

constructing authenticity and thus may influence the perception of authenticity in different ways. Consequently, this implies that there are broad divisions in terms of *types* of games in terms of whether they are realist/conceptual, but also how individual games implement mechanics, and how these relate to perceived authenticity and history more broadly.

The final theme highlighted by respondents was that often the narrative components of games were perceived to be inauthentic. 19 respondents asserted they felt the narrative components of games to be inauthentic, and of these 18 were in reference to realist simulation games. For example,

Assassin's Creed makes some pretense of historicity in its representations of settings (if not plots, characters, or events) (Danish male, 30-39).

This reiterates the data seen previously, where although material culture and the virtual world in realist simulations are largely perceived as authentic, the overarching narrative (or plot) and the characters and events situated within that narrative, are considered inauthentic. This was attributed to the far greater focus on (linear) narratives in realist simulation games, and the types of reconstructionist histories they tend to favour, i.e. as purportedly showing the past as it was to historical agents. In contrast, conceptual simulations have much more open, player-led narrative structures meaning there can be a multiplicity of different narratives, which are often counterfactual.

Despite the prevalence of counterfactual narratives created in conceptual simulations, this was rarely highlighted by respondents as an inauthentic element of these types of games. Therefore, it appears that if a game does not seem to be *claiming* to represent these elements as authentic (e.g. as conceptual simulations do not generally imply with their visual elements) then participants seemed to be less likely to judge these elements of the game based on their authenticity. This suggestion was particularly demonstrated by the following data, that compares a conceptual game (*Civilization*, 1991-present) with the realist simulation *Assassin's Creed* (2007-present):

I feel that historical inaccuracies in a story are a lot more jarring than inaccuracies in gameplay. I can happily play as the Aztecs in civ [Civilization], with fighter jets, the Internet and nukes, but the idea of Karl Marx giving me targets in assassin's creed seems ridiculous to me. (British male, 18-29).

This is indicative of the different expectations players have of authenticity depending on the game type, and how authenticity is perceived differently depending on a game's associated formal pressures. If the variety of different (and sometimes opposing) responses from players are also taken into account, this implies the intense complexity of perceptions of authenticity and the multiple factors involved in the formation of these perceptions.

4.5. Conclusions, Limitations and Implications for Learning History with Digital Games

The first study carried out as part of this research produced new insights into how audiences and players perceive historical media. In terms of learning, respondents were more likely to engage with historical drama than historical games with the specific intention of learning about the past, and were more likely to cite instances of informal learning from, and in relation to historical drama, in their free-text responses. Games were much more comparable to historical drama in the numeric data related to incidental learning, were more likely overall to be discussed in the free-text answers, and the learning was more likely to be viewed as enjoyable.

This data has also provided new perspectives of the interplay of games with other media and how engagement with history in one medium inspires and affects engagements with others. These complex relationships were developed further in reference to games and real life history/heritage experiences, through providing new conceptualisations and definitions of 'game tourism'.

With respect to authenticity, historical TV shows were considered the most authentic medium for conveying history, games the least, and historical film in between. Respondents' highlighted the

formal pressures of the media as affecting the representation of the historical content, as well as perceived economic pressures and the need for these media to be entertaining. Historical TV and film were considered authentic due to their representations of material culture, their fidelity to written texts, and were under the influence of negativity bias, where the latter findings are an original contribution to knowledge of audience perceptions of historical film and television.

Realist simulation games were also perceived as authentic due to their representations of material culture, though their mechanics, and narratives were more likely to be seen as inauthentic. Conceptual simulations in contrast were largely unremarkable in terms of narrative and material culture, despite their representation and inclusion of these elements, though their mechanics were more often cited as authentic. However, it appeared that games were perceived as less authentic than the other media precisely because of the increased formal pressures of games due to their necessary interactivity, in conjunction with the greater focus of respondents on the economic pressures. In turn, it appears there are tentative links between the perceived authenticity of a medium with the extent to which respondent's would engage with a medium with an intention to learn. This was indicated by the comparative responses to learning and authenticity in regards to historical drama, and games respectively. However, the suggested interrelations between these perceptions required examination in more detail, and were incorporated into the second study for the research.

This initial study built upon previous empirical studies of informal engagements with history, and provided a deeper understanding of perceptions in regards to TV and film, and games in more depth than previous studies (see 2.1). Through allowing respondents to answer with reference to each of the media, this allowed for comparisons to be made between and within the different forms. This said, the study had limitations. Although the Likert questions provided important data, respondents were not given the opportunity to explain their reasoning (except for the two in relation to authenticity) meaning only potential reasons could be suggested for their assertions. The free-text questions provided were clearly marked as optional, so there are respondents whose perspectives were not considered if they chose not to answer these questions. This was

compounded by the anonymity of the survey, which although may have increased the response rate, also meant there was no opportunity to follow up with respondents and ask them to expand upon their answers.

The survey's sampling was not stratified, meaning that it is difficult to generalise the findings more broadly, given the respondents self-selected to complete the survey. This could suggest that the respondents may have represented the people who were particularly invested in historical media, or conversely that were particularly critical of it. This may have been emphasised due to the inherent issues of using a survey format, such as social desirability bias. As respondents were told at the outset of the survey that it was part of larger research investigating learning through media, this may have caused them to stress the learning elements in their responses. In addition, this could have been exacerbated by the question wording and the media examples given to respondents.

The survey asked respondents about their experiences with historical media post-engagement with it, so there was little scope to assess perceptions of learning with these media as it occurs, as only the most memorable instances were provided by respondents. Conversely, other specific instances of learning through these media may have been forgotten by respondents when answering the survey, meaning that the study may have not provided a representative view. The second study of this research was thus designed to address these limitations in order to both build upon, and complement, the findings of the first study, which are described in the following chapters.

Chapter 5. Study 2: Findings

In chapter three, the methods for the second study of this research project were outlined. In chapter four, I described how Study 1 investigated whether players perceived they informally/incidentally learned about history through engaging with historical games, and how their responses compared with those pertaining to historical drama. While the first study did address player and audience perceptions of the authenticity of the respective media, the second study provides much greater depth and detail by exploring all six of the potential historical knowledge outcomes (beyond assessing only authenticity) and their associated learning activities.

This depth was achieved through analysing player's experiences specifically with historical games, and by limiting the historical period studied to only those games that represent antiquity in some way. Narrowing the research focus in this manner allowed for far greater nuance in identifying the particular types of historical understanding players' achieved through their engagement with these games or via their surrounding learning activities. Though, perhaps more importantly, it also provided opportunities for the collection of very rich data with a far greater granularity than in the first study. In turn, this allowed for a full exploration of the complexities and multiple factors involved in informal learning with this interactive medium.

The two frameworks used in this study to identify and assess the extent of learning through and with historical games (Conole, 2013; Seixas & Morton, 2013) were given in 2.4 and 4.8. In this chapter, the findings of the study are organised by Seixas and Morton's (2013) elements of historical understanding related to RQ1 (***What** do people learn through engaging with historical games?*). References to RQ2 (***How** do people learn through engaging with historical games?*) using Conole's (2013) learning activity taxonomy are thus interweaved amongst the six historical understanding concepts.

For all six elements of historical thinking, there are four to five individual guideposts (GPs) that indicate a learner has demonstrated their understanding of that particular GP, and by extension the associated historical thinking concept. These themes of historical understanding therefore

provided the headings for this chapter (for example, 'Historical Significance'/HS) and the GPs provide the sub-headings throughout the following analysis (e.g. HS: GP3. 'Student identifies how historical significance is constructed through narrative in textbooks and other historical accounts'). These GPs and the historical thinking concepts associated with them were given in 3.12, though the precise nature and wording of each GP are also given at the start of each subsection.

Although there were six elements of historical thinking in total, only four of them - Historical Significance; Historical Perspective Taking; Epistemology and Evidence, and Cause and Consequence – were significantly represented in the data. These four themes (5.1-5.4) make up the bulk of this chapter, with section 5.5 outlining the limited findings relating to the Ethical Dimension, Continuity and Change, and Peripheral Learning. Data is presented as transcribed, or in the case of email interviews, as it was written by the participants without editing (though insertions are made occasionally for clarity). The name and nature of the participants (Consumer, non-history/history; Producer – AARs/Modder/LetsPlays) and the source of the data (initial/final interview, single interview, diary) are given for context.

5.1. Historical Significance (HS)

Participants most commonly demonstrated the Historical Significance theme with specific reference to GPs 2 and 3. GP1 has considerable overlap with the Cause and Consequence theme (in terms of the consequences of certain actions resulting in change) and is discussed further in 5.4.

5.1.1. GP1: Student explains the historical significance of events, people, or developments by showing that they resulted in change.

Participants consistently displayed their awareness of the importance of narrative in their gameplay experiences, and of the way in which individual events gained additional meaning when situated within a narrative. The focus of these particular games upon warfare and military conquest implied to some participants that this is the most significant causal aspect of Roman history. For example, as Danny stated:

The game tends to give you the battles – I know you can go outside of the campaign mode and play the set-piece battles, which I have done occasionally, but I tend to play the campaign just so I can follow the longevity of it...

(Danny, Consumer – non-history, Initial Interview).

Danny suggests that he prefers longer gameplay, in that playing isolated battles are less pleasing to him than those that are situated within a wider context. His desire to “follow the longevity” of a campaign implies a narrative component: he would prefer to play within a narrative where the events are linked. For Danny, the battles become more significant when they are part of a larger narrative, as he is able to see the effects of his actions in terms of the *change they result in*. Indeed, campaign games focus on seeing what changes the player’s actions result in, which naturally overlap with these ideas of narrative.

The importance of the narrative components (and how they reflect the historical record) was more frequently cited by participants with reference to the other Historical Significance guideposts, given in the following sections.

5.1.2. GP2: Student explains the historical significance of events, people, or developments by showing what they reveal about issues in history or contemporary life.

Phillip played the game *Caesar IV* (2006) a city-building game that while containing military aspects of Rome's conquest, also includes mechanics relating to city-planning, politics, and economy.

I play certain games and before I know it, its 4AM and I havent learnt anything, except my plebs need more grain.

(Philip, Consumer – History, Diary)

When expanding upon his diary entry, Philip drew on both his gameplay experience of the plebs needing grain, but also on his prior understanding of the significance of grain to Roman society:

As far as I know, the two greatest breadbaskets of the Mediterranean World were Sicily and Egypt. Rome valued those places immensely and I don't think they ever allowed a rebellion to succeed in those places. Because those places, they fed the Empire didn't they? You see in it HBO's Rome. They used the grain shipments as a bargaining tool....

Whenever trouble was on the rise, give them some bread.

(Philip, Consumer – History, Final Interview)

Philip draws from his prior knowledge of Roman society as well as his engagements with other fictional media (HBO's *Rome* TV series, 2005-7) to qualify his understanding of grain's significance to the Roman Empire. That both *Rome* and *Caesar IV* had included the importance of grain within the narrative reinforced the significance of grain to Roman society, reiterating it via multiple narratives: the game, a TV series, and his prior understanding. This combination allowed him to express what he felt the focus on grain *revealed* about Roman society: the importance of grain to Rome in maintaining political stability across the Empire, as well as within the city of

Rome itself. His gameplay experience thus played more of a confirmatory role, reprising the significance of grain that he was already aware through other means.

Philip also recorded he found it “strange to be reminded of how stratified a society Rome was.”

(Philip, Consumer – History, Diary). When asked to expand upon this statement, Philip stated:

England is one of the most class-based countries in the world. It's familiar... It [the game] is a reminder that Rome, it was driven by class conflict that we would recognise and it's reflected in the political system isn't it?

(Phillip, Consumer – History, Final Interview.)

Philip uses his understanding of the present to reflect on the past, indicating what the significance of the class system *reveals about issues* in Roman society. He found the class issues represented within the game were familiar to him, specifically in terms of the current British political system. Redslayer echoed this idea from a different perspective: perceiving the path of contemporary America reflected the path of Roman history more broadly, where conversely to Philip, he used his understanding of the past to reflect on the present:

I also find it interesting how similar much of Roman history is to that of my own country today (the United States). Which appears to be following an eerily similar path through history, even showing many of the same signs of impending collapse. From currency devaluation, to blatant corruption within the government and cultural deterioration, leading to people going against the very founding of the country (for example, the movements against free speech and against the right to bear arms growing, and increasing government power). So often times I imagine Rome as an ancient times America.

(Redslayer, Producer-AARs, Single Interview)

This illustrates the awareness of some players of the parallels between the Roman Empire and the contemporary west, and how their cultural context informs how they engage with

the history represented within the games. They use their relationship with the present to understand the past, and vice versa. This finding reiterates the cultural significance of the Roman Empire to the US and UK, suggested in chapter 1. This idea also has implications for other historical learning themes (see 5.5.1).

5.1.3. [GP3: Student identifies how historical significance is constructed through narrative in textbooks and other historical accounts.](#)

The importance of narratives were frequently highlighted in the data due to the participants' desire to gain a better understanding of the *historical context* surrounding a game's events. In some instances, this context could be provided by the games themselves:

I rely mostly on the unit and building stats for getting info about their pros and cons, and what use can I make of them. However, reading historical data provided ingame (specially on EBII [Europa Barbarorum, a mod for Medieval Total War II]) has helped me contextualize things and get a better understanding of the logic behind those stats...

(Jose, Consumer – non-history, Initial interview)

Although the act of playing the game is an *experiential* activity, the games provide information to players about the historical context (in terms of unit statistics, city strengths and weaknesses, etc.) but presented in a textual form. This means players can engage in *assimilative* learning activities within their *experiential* play through of a game. In *Rome: Total War 2* for example, hovering the mouse over the icon of unit will give limited and basic information about it (e.g. unit type, morale) with this information overlaying any action occurring on screen.

For many participants these in-game *assimilative* activities were complemented by assimilative activities outside of the game, where they supplemented the in-game information with details from other sources that provided more narrative context. It was these assimilative activities

outside the games that were predominantly referenced by participants, in regards to this narrative context.

As stated (2.8), in conceptual simulations the historical narrative is more free-form, meaning that sometimes the narrative contextual information provided by a game is limited. Pete refers to a “pop-up” window that appears immediately after his first turn of an expansion for *Crusader Kings II*, informing him that a particular figure, Hilderic, is dead. However, this was the only information that was provided, so he was unaware of who Hilderic was and why he was given this information:

...I had to go out [of the game] and actually find out why, so it is almost like they [the developers] are baiting you, “go on, go and find out what this guy did. Why is he important? Because we're only going to give you this bit of information”.... For me it's simple bait, it really is.

...

[T]here's almost that element of “we [the developers] will give you some of the tools, or we'll give you some of the picture of what's going on here but there's a lot more out there if you want to go find it.

(Pete, Consumer – non-history, Final Interview).

The inclusion of a particular historical figure within the game indicated to Pete that they were significant enough to warrant further research. Nearly all participants highlighted contextual information as being important to their understanding, with the lack of information provided by the game motivating *finding information* and *assimilative* activities:

[A]lways each screen before a battle, or at the end of a turn it will always have that quote from some historical figure associated with the period, so reading up the history you actually get the full context for some of those quotes.

(Darren, Consumer – History, Initial interview.)

Although I play each game with my own strategy and tactics, I will take the time to research the real events that inspired the campaign or scenario I am playing.

(Leonard the Great, Producer-Mods, Single Interview.)

When I find some... characters that are in the game sometimes I look them up in Wikipedia or in the books, just to know what they did in the real life.

(Symon, Consumer – non-history, Final Interview.)

I don't do it for fact checking but for gathering more info about historical aspects I read in-game that I find interesting and I'd wish to know more about.

(Jose, Consumer – non-history, Initial Interview)

These pieces of data all highlight that these participants found the contextual information surrounding purportedly significant historical figures, events or locations to be important. For the participants to see the events in their own campaigns as significant, they desired to know why these events, battles, or figures were purportedly significant historically. When asked why this narrative context was important, the participants often cited immersion as the main motive for gaining this extra narrative context. Although previous research on immersion and learning was ambiguous and predominantly in relation to science learning (2.5.4) my research may provide new insights into this relationship with reference to historical games. Immersion is normally positioned as enabling learning. Here learning is enabling immersion. Thus immersion is a motivational factor rather than something with direct effects as regard learning.

I would say that it adds a lot of immersion to the game, you know, I find it's more enjoyable to play when I know more about you know, the context.

(Symon, Consumer – non-history, Initial interview)

... I feel I enjoy historical fiction more if I understand the history more....the character of Caesar through videogames, I looked [...] him up a little bit on Wikipedia and then started going all crazy - bought these different books, audio books, watched documentaries....Because I feel it's more enjoyable if you know what people are talking about.

(Leon, Consumer – non-history, Initial Interview.)

The data above demonstrates the participants' awareness that historical significance is constructed through narrative. But where the consumer participants engaged in *assimilative* and *information seeking* tasks to investigate the historical context of the games' events, AARtists construct their own narrative context, in the form of the *productive* AARs they write:

Total War campaigns lack story and I attempted to create one with character drama throughout the campaign I constructed.... I just may choose to leave out irrelevant information that happened in the campaign.

(The Govna, Producer – AARs, Single Interview)

The Govna makes judgements about the *significance* of events, people or developments and their subsequent impact upon the game campaign, and consequently on the narrative of his AARs.

Redslayer provided examples of the types of in-game events he sees as significant, precisely because they had a profound effect on his campaign and *resulted in change* (GP1):

If for example, a spy randomly gets assassinated outside of a border city, that likely won't be relevant enough to make it to the 'final cut' - same with a small border skirmish that effects nothing. Whereas A hard fought battle would also make it, win or lose, as it would most likely have an effect on the over all war.....

....Other things could have value, such as the building of the Colosseum during my time of peace.... It was important to the over all story, not because of some strategic victory, but because it showed true progress.

(Redslayer, Producer-AARs, Single Interview).

Redslayer explicitly states he would not include small skirmishes in his AAR that don't result in any profound change, though a particularly challenging battle – regardless of victory or defeat – would be included as it would affect the narrative of his AAR. He finds the Colosseum to have symbolic significance within the AAR as it demonstrated “true progress”, i.e. showing the results of the *change* from war to peace. In this way, Redslayer demonstrates *historically significant events result in change* (GP1), and through the *productive* activity of writing AARs, he demonstrated GP3.

Like the consumer participants who researched the narrative context of the game's events to increase their enjoyment and immersion in the game, the AARTist's creation of their own narrative context through their AARs similarly appeared to increase their immersion:

I've always enjoyed writing stories about the games I've played. With most games I will write myself a "back story" which helps me get into the game better...Writing outside of a game helps me get more immersed into the game world, which increases my overall enjoyment.

(Redslayer, Producer-AARs, Single Interview.)

Despite the different learning activities (assimilative/productive) undertaken by participants, their goal was the same: to increase their immersion within the game through obtaining narrative context for the events occurring within it. This said, other AARTists cited additional motivations for writing AARs, explored in 5.2 and 5.4.

5.2.4. GP4: Student makes factually accurate evidence-based inferences about the beliefs, values, and motivations of an historical actor, while recognising the limitations of our understanding.

James' data above is also indicative of a second HPT guidepost, as he makes evidence-based inferences (GP4) about the motivations of historical actors. He infers razing cities to the ground was in part economically motivated due to the value of accruing such wealth in military contexts.

Other examples of participants demonstrating GP4 were numerous. Using Jose's data as an example:

Every campaign has memorable instances of gameplay... Commanding armies to victory with your chosen characters and forging them into great generals by fighting battle after battle, and see them become the most powerful men in the empire, or see them die in desperate battles against all odds. Or maybe your cowardly general runs away and your scattered, beaten and forces must regroup and stand their ground on their own. Some units, lesser in quality and discipline, may run from battle but your elite units fight side by side until the end or until all hope is lost.

(Jose, Consumer – non-history, Initial Interview)

Jose recognises less well-trained troops would likely to retreat from battle, though disciplined, elite units would stand their ground, inferring the motivations of historical agents (GP4). He doesn't specifically link his gameplay with historical re-enactment, though uses personal pronouns (you/your) that indicates he sees himself as re-enacting instances from the past. Jose uses emotive and evocative language to describe his campaign experiences, and what his

campaign evaluations share is that, they are largely expressed through negative emotions. To return to the idea of historical agents' brutality and the players' complicity in re-enacting their brutality, this was referred to by other participants with specific reference to GP4:

It is also satisfying to see the large battles play out, and then to contemplate what it must have been like in real life to see such brutality... the brutality of them is quite interesting and admittedly enjoyable to play games based on. Though that's easy to say when its just a bunch of pixels on a screen being killed...

(Redslayer, Producer-AARs, Single Interview)

Like James, Redslayer re-enacts the perceived brutality of historical agents through the game, though also makes it clear that what he is seeing is merely a digital replication of those events, *recognising the limitations of our understanding* (GP4), due to the differences between seeing a simulation of brutality, and actually committing those acts. He recognises the limits of a digital representation to convey the true emotive impact of such scenarios, and thus our capacity to fully understand the past through historical games.

The participants' data demonstrated how the *experiential* activity of playing a historical game constitutes a form of historical re-enactment. Specifically for AARtists however, they use the *productive* activity of writing AARs to amplify their re-enactment experience.

[Writing AARs is] a way to engage in historical writing in regards to the topic I'm writing about, but I really classify it as creative writing since I'm not using any sources or doing any research on the matter, rather it's just recollection of historical scenarios that I have read or studied in the past and my attempt to reenact/alter them through gaming.

(The Govna, Producer-AARs, Single Interview)

Whilst The Govna is sceptical about the extent to which his AARs constitute "historical writing" he nonetheless links his in-game re-enactment experience with writing AARs. He is able to *infer*

some of what it may have been like for an historical agent, though by explicitly stating that he is not using sources or carrying out research into the events that he is writing about, he is also demonstrating his *recognition of the limits of his understanding*, where his limited understanding is actually intentional.

5.1.4. GP4: Student shows how historical significance varies over time and from group to group.

There was little evidence in the data with regard to HS: GP4, though this is a finding in itself. I suggest two reasons why this might be the case. Firstly, as Rome has a titular significance in many of the historical games that represent it, perhaps different groups (and thus how the significance varies between them) are less considered by players. Secondly, this could be a guidepost of historical understanding that games are simply less able to convey. Seixas and Morton recognised that “showing how significance can change over time and can vary depending on the perspective of different groups may be the most challenging competency for students to meet regarding historical significance” (Seixas and Morton 2013 p 23.). If an understanding of GP4 is challenging in formal education with a teacher to facilitate learning, in reference to a media representation and without a teacher, this may be an understanding that the games alone (and even with reference to other media) may struggle to achieve. The implications of participants not achieving particular guideposts is given in 7.3.

5.2. Historical Perspective Taking (HPT)

Section 2.8.3 outlined how games can afford the player a form of virtual re-enactment. Although a learner can demonstrate their understanding of HPT in numerous ways, it appeared that the

participants in this research felt more enabled to take historical perspectives through viewing their game experiences as a form of digital re-enactment. The participants' experiences with digital games appeared to more readily facilitate their understanding of HPT as they were able to 'insert themselves' (through their interactions with the game) into a historical narrative directly. All the participants expressed that their *experiential* activities with historical games constituted a form of re-enactment. This is a significant finding that gives us insight into how players view their engagements with history through these games, in terms of how they treat them as historical texts. With some participants, the connection between historical games re-enactment was direct:

I was fascinated from a young age that what I was "playing" actually happened in real life, especially in regards to the historical battles... It wasn't like playing a fantasy game, or some shooter...what I was reenacting had actually happened.

(The Govna – Producer-AARs- Single Interview.)

How the Govna defines this re-enactment is illuminating. Where many types of games can include roleplaying, re-enactment for him happens in a specifically historical context, whether virtually in historical games, or through traditional re-enactment. He frames his experience differently to other gameplay, and thus approaches historical games in a different way. Other participants expressed this idea implicitly, without using the term 're-enactment' but speaking of their experiences with similar meaning:

It's always interesting to, you know, be a part of history and affect it somehow...you can feel yourself as a general of this army, and that's quite fun.

(Symon, Consumer – non-history, Initial interview)

Symon's data here exemplifies how the participants also implicitly viewed the games as a form of re-enactment. When he plays he sees himself replicating the actions of historical agents and feels a part of the represented historical world: he himself is part of the

narrative of events. The following sub-sections illustrate how this digital re-enactment facilitated participant's understanding of the HPT guideposts.

5.2.1. GP1: Student identifies examples of a vast difference between worldviews prevalent today and those prevalent in the past.

Symon spoke above in absolute terms, specifically seeing himself as his army's general, though other participants had more nuanced understandings of the extent to which these roles constituted a form of re-enactment.

[C]an we really think about the Roman world in the way that the Romans did? This [game] gives you an idea I think ...

(James, Consumer–history, Initial Interview.)

James recognises the *difference between worldviews* (GP1) of the Romans and the contemporary player. He seems aware that we cannot truly replicate what it was actually like for a historical agent, although we can gain some approximation of how it may have been for them.

Other participants made comparable assertions in regards to this guidepost:

The way we are now has not changed [biologically] in tens of thousands of years, but from 2,000 years ago, the way we live to how we live now, not just obviously with technology and stuff but in the morality and the ethics and just in the day to day relationships, that side of it, that's probably the big hook for me. How you can have such different kind of viewpoints and different ways of living, from what essentially is the same human body as it were?

(Pete, Consumer – non-history, Final interview)

Like James, Pete also comments on the differences between world views (GP1) of the historical agents represented in the games, compared with our contemporary values. However, one of the

motivations for his interest in the ancient world is his ability to explore these differences. Pete and James data both highlight the player's experiences of 'otherness' within the games, which aids with potential pitfalls such as presentism. One of the main aspects cited by participants as highlighting these vivid distinctions between contemporary and historical worldviews was the perceived brutality of historical agents (see also 5.5.1):

[T]hey [the Romans] felt themselves as the bearers of civilisation and that was almost their mentality, their truth. And if heads had to roll, well that's just life..... The brutal practicality: that was their call sign...

(Mark, Consumer – History, Initial Interview)

In many ways, participants perceived the Romans justified their brutality through bringing civilisation to the 'uncivilised'. Whether this is historically verifiable is less important than the participant's perceptions that this was the case. Mark's assertion the Roman's brutal practicality was **their** call sign implies that it isn't his, or 'ours' in the contemporary world, demonstrating GP1. However, when players re-enacted the brutality of a culture through their game experiences, it often elicited negative emotions in the player, such as guilt. In this way, digitally re-enacting the actions of historical agents through the *experiential* activity of play caused some players to emotionally suffer, due to the perceived immorality of replicating these historical actions. This idea of suffering in historical games was a key finding in this research, and other participants provided examples of how this suffering, especially in terms of emotional suffering, heightened their re-enactment experiences (see 5.2.3.3 and 5.5.2.3).

5.2.2. GP2: Student exercises caution when drawing on universal human experiences (e.g. love, death, hunger) to understand historical actors.

As seen in section 5.1.2, there was little evidence of participants demonstrating this particular guidepost within the data. The implications of this are discussed further in 7.3.

5.2.3. GP3: Student explains or illustrates perspectives of people in their historical context.

All participants cited the emotive outcomes they associated with their play experiences (and the ways these linked with digital re-enactment) with particular reference to negative emotions. These references had a commonality in that each caused the player to emotionally suffer in some way. The participants perceived increased suffering resulted in a more authentic re-enactment experience, and thus the experience more authentically reflected the *perspectives of people in their historical context*. Suffering manifested in the data in three distinct ways. Firstly, suffering due to the players' emotional connection to a game's characters; secondly, through the difficulty or challenge of the game, and finally through the game apparently encouraging the player to make morally dubious decisions, and the associated guilt felt due to the perceived immorality of their actions. Before considering the data regarding the ways participants indicated they suffered through their game experiences, it is useful to refer to data provided by Darren.

Experiential learning activities have thus far been referenced to participants playing a digital game. However Darren engaged *experientially* in traditional historical re-enactment. When talking about his traditional re-enactment experience, Darren stated:

Re-enactment is the chance to become someone else for a while.

....some reenactors try to pass themselves as, "oh it's not relaxing ... it's not re-enactment or living history, it's experiential archaeology. We'll not just dress you up in these weird clothes for fun, we're doing it because we have to. It's work, yes. You can tell we're really suffering.

(Darren, Consumer – History, Final Interview.)

Darren's assertion here provides insight into the psyche of some re-enactors within his community. That re-enactment should not be "fun" for the participant, and that the re-enactor should suffer in some way, are assertions echoing what was seen in the literature in relation to both traditional and digital re-enactment (2.8.3). This suffering and how it challenges the

traditional re-enactor has a direct parallel with the experiences of the participants, who had a more authentic re-enactment experience with the games if they felt they suffered in some way. This suggests that notions of suffering are common to both digital and traditional re-enactment experiences. Yet where Darren has the opportunity to re-enact the past on a local level by wearing certain clothes, feeling the weight of certain weapons and armour, and by approximating the physical tasks taken by historical agents (such as marching), the participants in this research re-enact the past on a grander scale as a deity or military general, approximating the mental tasks of leadership undertaken by historical agents.

5.2.3.1. *Suffering through Emotional Connections to Game Characters*

Felippe compared his game experience of *Rome 2* with his reading of a Spanish novel, *Africanus: El hijo del consul* (tr. *Africanus: Son of the Consul*) (Posteguillo, 2008) that both included the same historical events:

The most direct experience [relationship] is with Total War: Rome II with the campaign of "Hannibal at the Gates" and has allowed me to enjoy it more by having "lived" the conflict from both sides in a more profound and sentimental way that [than] gives [given in] the novel.

(Felippe, Consumer – History, Final Interview)

His comment he “lived” the conflict is an implicit suggestion of his re-enactment of the past through his *experiential* game activities. While demonstrating GP3, Felippe’s data also indicates that he finds games more emotionally evocative than novels. The implication here is that games have an immediacy that novels do not provide, in that he feels more a part of the events represented in games compared with reading about them in books. Other participants echoed Felippe’s assertions, explicitly citing the *immersive* capacity of games as more readily facilitating these emotional connections:

I think some of it [historical understanding] is definitely the immersion element of games - when you're playing the last days of Rome and you see the Huns bearing down on you or whatever it may be, you can feel some of that panic and desperation in a way that maybe a book might not convey as well.

(Gareth, Consumer – non-history, Initial Interview.)

Gareth similarly compares his *experiential* engagement with a game with the *assimilative* experience of reading a book, where the latter cannot (for him) instil such emotions to the same extent as the former. Moreover, he links the emotional discomfort he feels while playing as contributing to the game's immersion. However, other participants saw the relationship between negative emotions and immersion differently. When asked to outline a particularly memorable instance of gameplay, Leonard the Great (LtG) responded:

I can recall being consumed by a 7 month long campaign where I tracked generation after generation of a roman family ensuring the survival of a particular family name. I had kept a separate log for each of my campaign characters, recording battles won, lost, cities conquered etc. This made it so much more painful when losing a favourite general. Guiding the progression of family name added a level of immersion that Rome II failed to deliver on.

(Leonard the Great, Producer-AARs, Single Interview)

Where Gareth found immersion heightened his emotional investment in the game's characters, LtG credits his emotional investment in a particular family, and the *experiential* and *productive* activities he undertakes, as increasing his immersion in the game. In many ways LtG's suffering was an understanding gained through an *experiential* activity (playing the game), but his emotional connection was heightened through his *productive* activity of recording a log of characters and events outside the game. This points to the multi-directional link between emotions, immersion, and HPT, though there appears to be no clear-cut cause and effect – only

different relationships between these elements that vary depending subjectively depending on the individual.

These data exemplify how through these negative emotional experiences, in particular those concerning the connections to game characters, the participants were able to approximate the sense of loss that historical agents may have felt. Through their game experiences, the participants conveyed the *perspectives of people within their historical context* (GP3) as represented in the games.

5.2.3.2. Suffering: Challenge and Difficulty.

As stated in 2.5.3, in games the outcome is uncertain: there is a challenge involved that the player must overcome. It is precisely the element of suffering through challenge that participants highlighted, where they equated the difficulty of the game with a more 'realistic' or 'authentic' re-enactment experience. Although the findings relating to authenticity are reported in full in 5.3, there was nonetheless a strong relationship between the participants' perceptions of authentically experiencing the perspectives of historical agents, and the difficulty/suffering caused to participants by these challenges.

In his diary, Aaron recorded:

Read up on, and then installed, a couple of mods for RtW [Rome: Total War], including Darth Mod. A bit more historically accurate, but mainly for balance - making the Roman factions a bit less overwhelmingly powerful.

(Aaron, Consumer – history, Diary).

Aaron's statement makes an implicit claim that – prior to the installation of the mod – it was easier (and perhaps too easy) to win with the Romans. When expanding upon this in his final interview, Aaron stated:

[W]here certain things are really, really difficult... If it's made realistically difficult, then it's a more satisfying game.

(Aaron, Consumer – history, Final Interview.)

Aaron equates the authenticity of the game with its challenge, i.e. that it is “realistically difficult”. In Aaron’s view, the authenticity of the game is linked with its difficulty, where the more challenging the game, the more the player ‘suffers’ to achieve victory and the more realistically it represents the challenge faced by the historical agents. Of course, this is his perception and not based on any historical ‘fact’ of how difficult it actually was for the Romans to conquer these places, but his perception was reiterated by many other participants also.

For example,

One of the mods which I used to play... makes some of the ships tougher, it makes some of the warfare longer lasting.

..... It [the mod] makes it more difficult...but this one pushes it more towards ... a realistic challenge, less gamey.

(Pete, Consumer- non-history, Final Interview)

Pete similarly equates the challenge of the game with its perceived realism, indicating the prevalence of perceptions equating emotional suffering through challenge with the perceived difficulty (and thus authenticity) of a game’s representation. Therefore, making the warfare longer-lasting and increasing the difficulty for the player is seen to result in a more authentic re-enactment experience. The participants assume that the actions *must* have been more difficult for the historical agents than the base game represents, so making the game more challenging (in this case through mods) the participants perceive it becomes closer to approximating what it was like for historical agents, and thus demonstrated GP3.

5.2.3.3. *Suffering and Morality*

Participants reflected on what it may have been like emotionally for historical agents, and had the perception that a more challenging game constituted a more authentic experience. They also reflected on their role as *players*, and on the decisions that they made when playing the games:

[Y]ou have to sack everywhere otherwise you don't progress... so you have no choice. You literally have to raze the place to the ground and that's it. It's getting in the way of loot, which sort of feels reasonable given what we know about how they conducted themselves and the reasons why they did.... there's a bit of you that feels bad because you're doing it, but you perfectly realise that if you want to progress the campaign this is how it's going to be.

(James, Consumer – History, Initial interview.)

He expanded upon this in his final interview:

[A]t the game level, that's clearly the best thing to do. But on a moral level, you're thinking "would I really put 12,000 people to the sword and steal all their belongings? When that's essentially what I just did several times.

(James, Consumer – History, Final interview)

Although James' actions may correspond with how a historical agent would have acted (thus highlighting GP3), from a contemporary perspective these actions are perceived to be unethical or immoral, resulting in his sense of guilt. It is precisely because of their own choices in the game that participants felt these negative emotions, perceiving a tension between the best actions to take for progression, with their perception of the (im)morality of those actions. This aspect of immorality of the player's actions also has considerable overlap with the Ethical Dimension theme, and is discussed further in 5.5.2.2.

5.2.5. GP5: Student distinguishes a variety of perspectives among historical actors participating in a given event.

Other AARTists reiterated that writing AARs allowed them to expand upon their digital re-enactment experiences, through providing additional depth to the narrative context they created for their play experience:

Writing an AAR offers different things to different people. It can be a way to add roleplay to your campaign (adding depth and additional motivation to in-game characters, places and events).... I like exploring the characters, the choices they make and how their experiences affect them.

(Alwyn, Producer-AARs, Single Interview)

AARTists use their writing to speculate about the *beliefs, values and motivations* of historical actors (GP4) but Alwyn also uses them to distinguish between a *variety of perspectives* (GP5). For example, Alwyn uses the 'Iceni Roster Expansion Mod' for *Total War: Rome 2* created by Sebidee, a modder who also participated in this research. This mod provides a greater variety of Iceni troops available to the player in the basic game. Alwyn played as the Iceni factions, using his campaign experience as the basis of his '*Andraste's Children*' AAR (see Appendix D). Alwyn explored the invasion of Britannia by the Romans from the perspective of the Iceni. He writes, and plays, from the less common perspective of the invaded people as opposed to the (more commonly experienced) Roman invading force. Although the AAR is firmly in the realm of alternative history (discussed in detail in 5.4.5.2), his AAR highlights his awareness that there were multiple perspectives amongst the people that participated in this event.

Other producers also demonstrated GP5, namely modder participants who *adapted* historical games. Sir Althons stated on his forum mod description that the mod increased the diversity of *Total War: Rome 2's* units, i.e. by adding new units, altering how they were visually represented and how they manoeuvred, adding to the complexity of the basic game. Sebidee gave further

explanations as to why he felt modding to increase the number, variety or tactical potential of units was important:

It's important that the men in the unit all look unique and have different clothing and armour as well as different colour variations as this gives the impression that they are all individuals with their own lives. I wanted to make it so that the smallest division in an army wasn't a unit but a man, which is of course how it was in real life...

This is related to accuracy and immersion... the models used are often limited meaning that many men in that unit will look the same, almost as if they were clones.

(Sebidee, Producer-Mods, Single Interview)

Sebidee's desire to create individuals illustrates GP5, where he equates the individuality of the men as being more representative of how it would have been in actuality. He finds having men in the game possessing different characteristics as being more *believable*, signified by his assertion that creating more variation within the units is linked to "accuracy and immersion". Through making the units more individual, it increases his emotional connection, and thus immersion, in the game. Sebidee continued:

If I am acting as a general or as a king then I need to be able to trick myself into thinking that is true which is only possible if the game is very authentic and realistic.

(Sebidee, Producer-Mods, Single Interview)

For Sebidee, the perceived accuracy of the game is crucial to his immersion, and thus to his re-enactment experience. How the participants understood the Epistemology and Evidence theme, in relation to accuracy or the authenticity of their re-enactment experience, is provided in the next section.

5.3. Epistemology and Evidence (E&E)

Through the course of analysing the data for this theme, it became clear that there was often much overlap between the GPs. For example, when considering the games, participants might use them as *evidence for inquiry* (GP2) while simultaneously *corroborating* what they had seen in the game with other sources (GP5). Furthermore, they would consider why a game was made (as a commercial entertainment product) and whom it was made by (developers) and for whom (players) (GP3). This naturally overlapped with GP4, as by doing so they *contextualised* the games as a source, *keeping in mind contemporary conditions and worldviews*.

Seixas and Morton's (2013) meaning of primary sources was in terms of "accounts, relics and records", i.e. sources contemporaneous with the period being studied. However, in order to incorporate the participants' experiences with the *games* as historical sources and not only primary/ancient sources, Seixas and Morton's (2013) framework was adapted to refer generally to 'sources', as the same skills of analysis are required to work with secondary sources as primary. Where primary, ancient sources are referred to, it will be made clear that these are historical texts and will be referred to accordingly.

GP1 was weaved amongst participant's data, so the analysis of this section will conform to how these guideposts naturally occurred: with E&E GPs 2 and 5 considered in the first section of this theme and GPs 3 and 4 in the second, with GP1 referred to as appropriate throughout this section.

5.3.1. GP2: Asks good questions that turn sources into evidence for enquiry, argument or account; GP5: Corroborates inference from a single source with info from other sources (including secondary) and expresses degrees of certainty about those inferences.

The most direct references specifically to GP2 was from AArtists. They used the games as *evidence for an account*, specifically for accounts of their game experiences, through the

productive activity of writing AARs. AARtists were less concerned with the extent the campaign adhered to the historical record, finding it more important to ensure they *accurately reflected their game campaign*, as The Govna exemplifies:

I never stray from what happens in the campaign, I just embellish it.

(The Govna, Producer-AARs, Single Interview)

Redslayer used the term “contextually accurate” to define his AARs, using historically relevant skills to do write his narratives. He cites this contextual accuracy as necessary due to the fact that the games themselves don’t often accurately adhere to the historical record:

Typically I will limit it [the AAR] to things that are contextually accurate to the game itself, and since history rarely aligns with a TW [Total War] play through, I don't typically bother with looking up historical backing for an AAR.

(Redslayer, Producer-AARs, Single Interview)

Redslayer’s statement that his game campaigns tend not to be accurate is also illuminating, and echoed by other participants to different extents, discussed further in 5.3.2.

5.3.1.1. *Finding and Assimilating Information: Importance and Motivations*

The primary motivation for most participants to engage in *finding information* and *assimilative* activities was to obtain narrative context (5.1.3) though some did state that their information seeking behaviours were motivated by their perception of a game’s inauthenticity/inaccuracy:

I quickly became aware that you cannot always rely on the information that is in a game. So... the things that I found really incredible I would fact check... if I see something in a game that I find bizarre or maybe unlogical [sic] I would look that up. If I see, say, a Roman unit with a uniform or with equipment that I find a little bit out of place, or a bit fantasy-like, I do look that up to see if that is correct or not.

(Leon, Consumer – non-history, Initial Interview)

For Leon, the inclusion within games of things that he feels are bizarre or illogical compels him to *corroborate* them with other sources. His choice of language implies extremes: it would take a representation he feels is firmly in the realm of the incredible to motivate him to fact-check this element, only seemingly questioning particularly dissonant aspects. However, other participants had different perspectives, aligning more with what we will see in 5.3.2.

I know they're a game, they're not going to be a historical reality so the idea of checking something because it's not accurate for me is not that important.

(Pete, Consumer – non-history, Initial interview)

Pete plays a game with the assumption that it won't be authentic from the outset, so there is no impetus for him to engage in fact-checking behaviour based on perceived inauthenticity. His assertion here highlights that perhaps when players play historical games, they are already predisposed to assume they are inauthentic, and thus doubt (and perhaps even disregard) the authenticity of the histories they represent. Sometimes participants would fact-check aspects they felt were inauthentic, but more commonly the games inspired interest in a particular topic, acting as a springboard to further research:

I'd like to think that, for example, the experience of fighting Hannibal [in a game] might lead somebody to find out more about these events and individuals....

(Calum, Consumer – History, Initial interview)

It's not really there as a history lesson. It's more a case of it inspires people to go and read about history. That's what I think Total War is.

(LoTW, Producer-LetsPlays, Single Interview)

Participants therefore use the games as a basis *for inquiry* (GP2). Whilst perhaps not using them as *evidence* for this inquiry, they provide an introduction to historical aspects that motivate further research. Although in many ways this is related to gaining extra context about the events of the

game, what is important here for the E&E theme is **how** the information seeking is occurring, in terms of the games motivating these activities, what sources participants use to find this information related to (and inspired by) their play experiences, and how they judge the reliability of these sources. These are crucial skills in terms of GP5, and also what participant's perceive are legitimate forms for learning about the past.

5.3.1.2. Ancient (Primary) Sources

Ancient sources were mainly used by non-history consumers, where two participants read primary sources relating to their game experiences. Philip compares ancient sources with the representation seen in games, and uses these sources to highlight the game's inauthenticity. Conversely, Pete reads primary sources to complement and expand upon what he has seen in a game and actively evaluates both in relation to their perceived authenticity.

[W]hen I read Xenophon¹⁰ and when I read anyone[like].... Thucydides¹¹, I'm always shocked by the number of cities and polis that are never beaten in battle or they're never taken by force, but some traitor opens the gates at night. That happens all the time in ancient Greece. You can't do that in [the game] Hegemony Gold.

(Philip, Consumer – History, Final interview)

Also be quite interested to get a copy of the secret history of Procopius¹². To get a different take on the brave general an[d] the ambitious Emperor.

¹⁰ Xenophon was an ancient Greek military commander, historian and a student of Socrates, who lived around 400BCE.

¹¹ Thucydides was an Athenian general and historian, who lived between 460-400BCE.

¹² Procopius wrote his *Secret History* in the 6th Century CE, on the general Belisarius and Emperor Justinian's campaigns to regain control over some lost provinces of the Roman Empire.

(Pete, Consumer – non-history, Diary)

Pete expanded upon this in his final interview:

Whether it was genuine, whether it's not genuine, whether it's truthful, whether it's not truthful, just reading some of the extracts I found on the Internet, it really doesn't hold back...

(Pete, Consumer – non-history, Final interview)

For Philip, the reference to a traitor opening the gates is something that he has seen in multiple sources that therefore corroborate each other. When this element is omitted in the game, this causes him to perceive the game as inauthentic: he sees the description of the events in ancient sources as being more reliable than the (lack of) depiction in the game. Consequently, in terms of RQ2, he is *handling information, ordering* and *classifying* based on their perceived authenticity.

Pete played the Last Roman Expansion pack for *Total War: Attila* (2015) set in 533CE, which included a Roman general, Belisarius and the Emperor Justinian. He wanted a “different take” on the how the historical figures were represented in the game, indicating GP2 as he uses the game as *evidence for inquiry*. Though his awareness that there are likely several interpretations of the relationship between these historical figures, this also overlaps with HPT: GP5. When Pete expanded upon this, he *expressed degrees of certainty* (EE: GP5) about what he read. He questions the authenticity of the text, without explicitly stating whether he feels it *is* truthful or genuine, maintaining a critical distance.

Where Pete expresses *degrees of certainty* about the game **and** the written text, Philip had different degrees of certainty in how he *classified* these respective sources. He perceived ancient sources as more trustworthy than the game’s representation, the implications of which are discussed further in chapter 6. Although this data alone does not indicate why Philip may perceive the primary sources as more authentic than the game, other participants have

attributed their perception of games' inauthenticity as a consequence of the form (see 5.3.2), so it could be argued that Philip had similar reasoning.

5.3.1.3. Secondary Sources and Websites

Consumers with a historical background seemed more likely to consult secondary sources.

One of my first references [for research] would be some of the various books I have picked up over the last 7 or 8 years doing the diploma and the PhD... And then, casual Internet searches.... the thing that still bugs me is how wildly inaccurate most Internet sources are.... Somehow I trust books, isn't that odd.

(James, Consumer – History, Initial interview)

For historical accuracy I'll go and read about it, like I'll get on google scholar or I'll get down to the library.

(Aaron, Consumer – History, Initial Interview)

He expanded upon this in his final interview:

[W]hen you're researching, you're going to go for probably the most cited paper, or at least I'll go for the most cited paper.

(Aaron, Consumer – History, Final Interview).

Having formally studied the time period represented in games means history consumers have previously acquired or have access to secondary texts that they use for corroboration (GP5).

Aaron's use of Google Scholar enables him to assess the perceived trustworthiness of secondary sources, through his assessment that the most cited paper must be the most reliable, due to the consensus among other scholars who have referenced it.

By outlining that these types of secondary sources as their 'go-to', Aaron and James indicate they see these sources as more reliable, though James still expresses uncertainty (GP5) about his inference that he sees books as trustworthy. This scepticism is especially evident with online sources, so in terms of RQ2, they both *handle and assimilate information*, classifying a wide range of sources based on their perceived credibility and epistemological validity.

The Internet was the most readily used and accessed resource by participants in general, possibly due to the instant access to websites when playing on a PC. However, this also appeared partly due to issues of access to books and journal articles that are often behind expensive paywalls:

[W]e didn't have access to many historical articles and books. Much of our information came from amateur historical websites and less reliable sources such as Wikipedia.

(Sebidee, Producer-Mods, Single Interview)

I mostly use Wikipedia, and although I know it's not the most reliable source out there, it gets the job done most of the times; besides, I usually try to check the bibliographical sources of these articles. ... I judge them based on the bibliographical references they provide at the bottom, if they are questionable or if there is little to no reference at all, I tend to look for other sources.

(Jose, Consumer – non-history, Initial Interview)

Both Sebidee and Jose use Wikipedia, making similar assertions as to its unreliability (GP5), presumably because Wikipedia is a collaboratively written online encyclopaedia that is openly editable with anonymously-written content. This means there is often scepticism as to its reliability due to the way the content is collaboratively sourced, often including intentional falsehoods and editing conflicts (Leonard, 2013). This implies that Jose and Sebidee's questioning

of Wikipedia's reliability is at least partly due to the way in which its content is created, where Jose turns to other sources to corroborate perceivably unreliable Wikipedia entries.

Modders lamented the absence of useful sources for their *adaptive* purpose, as they do not often provide the detailed visual representations required to (re)design a unit's appearance:

[T]he most problematic aspect for me is the mod / unit design I would say. There is no perfect complete source to base the unit's on yet...

[T]he drawings are only very basic, only outlines and no colours. How does the backside of the shield look like? Side view? Which colour should I use here, how should the texture and surface look like in detail? So a book like that doesn't provide enough information itself.

(Stealth 4 Health, Producer-Mods, Single Interview).

Stealth 4 Health uses this information as evidence for an enquiry (GP2). The books alone do not provide enough information for his purpose, so he turns elsewhere to other sources such as replica and re-enactment websites:

I like to use pictures of replicas (and have bought a few) from reliable sources (in terms of historical authenticity). Many models are based on the replicas offered on Armae.com, others based on the reconstructions used by the more famous re-enactment groups....

(Stealth 4 Health, Producer-Mods, Single Interview)

Stealth 4 Health's use of replicas and re-enactment sites as sources for the visual aesthetics of his mods makes further connections between traditional re-enactment practices with the digital re-enactment that games offer, with other modders also turning to these sites as visual sources. This highlights the multi-directional relationships between the differing re-enactment practices occurring within and entirely separate from games. Modders borrow the aesthetic of traditional re-enactment and apply this to games through *adaptively* modding. Players then *experience* these

games/mods, engaging in similar discourses (i.e. suffering) of the traditional and digital forms of re-enactment. This points to a specific interplay between traditional and digital re-enactment through games, where each feeds into and affects the other.

Modders often relied on their own interpretations and judgements of what was historically feasible or typical, given the lack of sources to adhere to:

I stick to an [sic.] strict historicity or at least feasibility [making mods]... all of the units are historic or at the very least historically possible, in accordance with the spirit of their factions.

(Sir Alfthons, Producer-Mods, Single Interview).

[T]here was a lot of unknown information, particularly relating to barbarian factions which did not have any organised militaries or even a lot of written history.... which meant I had to invent a lot of units by studying the tactics they used and then giving them units which could perform them.

(Sebidee, Producer-Mods, Single Interview)

Sir Alfthons and Sebidee critically evaluate the sources they have available to them, applying them to their mods in what is the most **plausible** interpretation:

This mod was intended to be as accurate as possible and most of the units it adds are real units from history. But I did take some creative liberties to make the units appealing. For example, I might make a unit which was rare in history more common simply because it was interesting. There are also examples of where I logically extended history and said "if they fought like that, then they must have had a units like this.

(Sebidee, Producer-Mods, Single Interview).

Sebidee's data highlights how modders interpret what was historically logical, and also how the game form impacts the historical content that he creates (GP4). He takes "creative liberties" and logically "extends history" to make aspects of the mod more appealing, as well as making some units more prevalent if he considered them to be interesting to play with. His assertion also introduces the idea of authentic (logical or plausible) counterfactual histories, addressed in section 5.4.

5.3.1.4. Forums

As well as Internet sites, participants would use forums *assimilatively* (i.e. without contributing to discussions) to research historical content. For example, Pete found that reading the discussions on game forums made him aware of different perspectives on the historical content within games:

Reading the forum kind of, not slapped me back into reality as such, but kind of made me think okay, just because this guy's done all this work doesn't mean his conclusions are going to be the correct things. Take it with a pinch of salt.

(Pete, Consumer – non-history, Final Interview)

Pete refers to book he read on hoplite (ancient Greek infantry soldiers) warfare, where "this guy" is the book's author. The forum discussions lead him to question the book as a source, using the forum posts to *corroborate* the information (GP5). This highlights his awareness of the interpretative nature of historical inquiry (GP1) but Pete's engagement with the book motivated subsequent game-experiences:

Reading a book on Hoplite warfare and I get an email about a sale on the Total War Franchise... Wrath of Sparta DLC for £2. Why not. So, I got to have a good reason downloading Rome again, and seeing how the Hoplite was modelled in the game compared to what my book states. Long story short, it does not....I'll admit I was

disappointed.

(Pete, Consumer – non-history, Diary)

This data highlights two important aspects of information seeking relating to historical games. The first is that historical games are not always the motivating factor for information seeking. Games do inspire players to conduct further research, though the opposite is also true. Researching historical content can result in players wishing to see how it is implemented within historical games.

Secondly, when Pete compares the book to the game there appeared to be an implicit expectation that the game should conform to what he has read, despite him questioning the book's veracity. His immediate assumption is that the game is not as trustworthy, with Pete's data providing further evidence that when players classify sources based on their perceived reliability, games are considered fairly unreliable, even less than written sources, in this trustworthiness hierarchy.

There were instances of participants *communicating* in forums as a means of *corroboration* (GP5) where 'other sources' in this instance are people. For example,

...I could go online, put something on those forums, ask a question about the history of the period [represented in a game] and they can reply to me and I could you know, reliably believe them.

(Leon, Consumer – non-history, Initial Interview)

I wasn't sure [about the representation of certain armour in a game] so I just thought I'd ask the best source of military history knowledge on the Internet ... a chat thread for military history fans... I'm not sure about the areas of expertise for the people who responded ... [but] there are some classical era specialists, and usually the right people tend to reply to the posts about that era.

(Aaron, Consumer – History, Final Interview)

Both these data suggest that *communicative* forum activities are considered (by these participants at least) to be reliable sources of information. Aaron cites a particular thread as reliable due to its membership including people who specialise in classical history, though Leon's assertions are general. Both *express degrees of certainty* (GP5) about these discussions, but feel that the outcomes of these discourses are dependable.

This wasn't the case with all participants however. Philip exemplifies the subjectivity of interpretation by questioning other's interpretations as well as his own understanding:

[S]ome of the stuff that gets posted there is just blatantly wrong, blatantly false and I used to correct them the Internet is full of people like me who may very well think that they're telling the truth but more often than not, they've not considered this source, they've not considered that source.

(Philip, Consumer – History, Final interview.)

Philip similarly engages in communicative activities related to perceived authenticity, but comes to the opposite conclusion about the reliability of these sources. He even expresses uncertainty about his *own* interpretations of history and whether he has come to the most accurate interpretation. Leon, Aaron and Philip all *express degrees of certainty* (GP5) of these interactions as historical sources, but come to very different conclusions about the veracity of those interactions, highlighting the subjectivity of their different perspectives.

5.3.1.5. LetsPlay videos

Participants engaged with many visual media related to ancient history (i.e. fictional film, TV, documentaries) but here the focus is on LetsPlay videos, as this media pertains directly to historical games. Symon refers to videos made by Legend of Total War (LoTW) a professional YouTuber who makes LetsPlay videos with the *Total War* franchise of games (see 2.9.2.2). Several

of the participants watched his videos depicting *Total War: Rome 2* campaigns. In terms of learning, participants engaged in the *assimilative* activity of observing the *experiential* and *productive* activity of another player:

He actually knows history quite well and he can add some historical information throughout his tantrums.... And he is a main source for the exploits that I get.

(Symon, Consumer – non-history, Final interview)

The supplemental historical information LoTW provides through commentary is a source of information for Symon's (in-game) decisions, meaning through the *assimilative* task of watching the LetsPlay, Symon learns to *experientially* play his own game better. Although this isn't specifically linked to historical understanding in itself, nonetheless it highlights how interrelated the learning processes are in relation to games with *assimilative* activities affecting *experiential*, potentially leading to elements of historical understanding.

LoTW has around 160 thousand subscribers and some of his videos have had over 200 000 views each. He talks here about how he and his viewers respond to the authenticity of his campaigns in relation to the historical record:

[I]f I'm not certain, I will say I'm not certain about something. I won't say "this person won the battle" if I'm not certain. If I do, someone [a viewer] in the comments will correct me. And if I'm interested enough in the conversation, I'll read into it... if I feel that person's wrong I'll look it up and disprove them. That way it's starts a conversation and it's much more interesting that way, rather than me doing all this research and then coming in and providing a very static and stale campaign like a history teacher or something.

Sometimes it's actually good to be wrong about something. Sometimes it sparks an interest... - intentionally saying something incorrect - just to see if they [viewers]... catch on to it.

This data highlights several important aspects of how players make meaning from historical games through *communicative* learning processes. Players like Symon learn in *assimilative* ways from the LetsPlay videos made by LoTW. However from LoTW's perspective this learning is reciprocal: if he says something inaccurate in a video then a viewer will correct him. This then may cause him to engage in further *assimilative* learning activities in order to bolster further discussions related to the accuracy/authenticity of a game's representation, where these discussions maintain viewer's interest in his videos. LoTW uses his viewers to *corroborate* (GP5) his own perceptions of the game or campaign's authenticity, sometimes using additional sources that he can then reference in his interactions.

5.3.2. GP3: Asks questions through sourcing – when, why and whom; GP4: Contextualises sources and keeping in mind conditions and worldviews prevalent at the time.

As stated above, Guideposts 3 and 4 of the E&E theme are considered together. A dominant finding within the data was the perceived tension between the historical accuracy of a game's representation and with its associated immersive capacity. As outlined in 2.5.4, the nature of immersion as it relates to learning is ambiguous; so too is the nature of immersion's relationship with historical accuracy.

5.3.2.1. *Accuracy vs. Immersion*

In 5.1.4, a greater understanding of a game's historical context was linked with a more immersive game experience. In 5.2.3.1, the participants' emotional investment in the game's characters heightened their immersion in a game. For some participants (especially modders who mainly *adapt* games to increase their accuracy) a game was more immersive if they felt it was accurate.

Sebidee gave reasons why he thinks modding is necessary:

Mods are very, very valuable for historical games usually because they make them more historical [i.e. more accurate]. Game developers, and especially triple A game developers... need to make their games appeal to a wide audience which often means simplifying mechanics and including 'flashier' and historically inaccurate features.

(Sebidee, Producer-Mods, Single Interview)

Sebidee's assertion about the cultural and economic pressures that developers face is illuminating. He displays his awareness of the balance between accuracy and gameplay, and feels developers include historically inaccurate features to ensure games appeal to and can be played by a wide range of players. This idea of the basic games as inauthentic due to their perceived simplicity is reminiscent of 5.2.3.2, where the difficulty/challenge of a game was equated with its perceived authenticity: here is the other half of the same coin.

Sebidee infers from games as a sources (GP1), asking questions about *why* it was made (as a commercial entertainment product) and *by/for* whom (by developers, for a wide audience of players). With reference to GP3, who the game is made *for* impacts upon the historical content in the games as much as who the game is made *by*. Sebidee's awareness of the contexts of production *and* reception of these games, implicitly demonstrates he *contextualises* the game as a *source, keeping in mind the conditions and worldviews* evident in the contemporary world (GP4).

When asked about the importance of historical accuracy/authenticity to immersion, producers stated:

[A]ccuracy is needed for the "immersion" of a game. If I can't get into a game and feel like I am a part of it, I can't enjoy it as much.

(Redslayer, Producer-AARs, Single Interview)

Accuracy and immersion are vital to creating a suspension of disbelief which greatly enhances the experience of playing a game.

(Sebidee, Producer-Mods, Single Interview)

As producer participants (and thus very motivated players) perhaps issues of perceived inaccuracy are something they are more attuned to recognising. Sebidee considered the accuracy of games vital to his immersion, though recognised the challenges associated with representing history within an interactive medium:

Of course, you often have to make decision based on the gameplay mechanics present in the game....I have to remember that the game needs to be fun and needs to play well. If attention to historical accuracy affects gameplay negatively then it should be changed...

At the same time when something is wildly inaccurate, that can effect [sic.] the gaming experience (or immersion...)

(Sebidee, Producer-Mods, Single Interview).

Sebidee here *contextualises* games as a source (GP4), in this case the conditions evident in the production of historical games. Games have particular interactive properties and formal pressures that affect how the historical content is structured and represented. Sebidee's data highlights his awareness of these tensions between the game form and accurate historical content, and how this (in)accuracy affects his immersion.

Other participants often held opposing perspectives to the producers, in terms of the relative importance of accuracy to immersion:

For myself [inaccuracy] it's not going to be the be all and end all to the immersion in the game.

(Pete, Consumer – non-history, Final Interview)

Where Sebidee sees accuracy in a game as vital to his immersion and enjoyment, Pete can be immersed in a game despite his awareness it may not be accurate. This points to the inherent subjectivity of perceptions of authenticity within games depending on the participant's activities with the content, which affect the relative importance of issues of perceived accuracy to their play experience.

5.3.2.2. Accuracy, Authenticity, Media Form and Historical Content

Extremely prevalent in the data was the participants' awareness of how the affordances and constraints of the game as a media form influenced how the historical content in games was represented. On the one hand, participants (especially modders) considered authenticity to be important, but on the other they accepted that when games were inauthentic, offering reasons as to why.

There was a perceived tension between the demands of gameplay, and the requirement of the form to be entertaining, impacting the representation of the historical content, a tension that nearly all participants cited. One participant, when asked if accuracy/authenticity was important to him in historical games, stated:

It depends on the degree of inaccuracy.... I don't consider myself a historical accuracy fanatic. I understand these are games meant to provide a fun, interesting and fulfilling experience to the player, and being too sticky to authenticity can damage the gameplay experience.

(Jose, Consumer – non-history, Initial Interview)

Jose's assertion echoes Sebidee's previously: they both feel the ultimate purpose of games is that they be fun. However interrelated with sense of fun is the nature of immersion: a less immersive experience is perceived by Jose to lessen his likelihood of playing the game. Conversely, Jose is aware that adhering too strictly to authenticity poses a risk that the game will also be less

enjoyable to play. This perspective therefore contradicts the data from the producers given above, who found accuracy essential to their immersion in games.

This indicates the inherent tension between representing history within an interactive medium, and ensuring that it is sufficiently entertaining for players. The historical representation and how the gameplay functions within are perceived to contribute to the player's immersion; though one is seen to proportionally affect the other. This seems to suggest that discourses surrounding the relationship between authenticity and entertainment for many players sit on a continuum. For modders, the perceived authenticity of a game was considered important, even though they critically approached the *form* and make *insightful inferences* (GP1) as to when a historical representation in a game was inauthentic, why they assumed this was the case:

[C]ertain kinds of soldiers need to act in the same way as they did in real life so that a battle between Romans and Gauls actually plays like a battle between Romans and Gauls. If they didn't then what would be the point in playing as them? However there are certain understandable exceptions that must be made for gameplay reasons (for example large scale battles tend to last only 10 minutes rather than hours). Also, some incorrect things may be included to make the game more exciting or interesting.

(Sebidee, Producer-Mods, Single Interview)

Sebidee makes a distinction between the level and types of authenticity he feels a game needs to provide and what he feels are understandable reductions, omissions, or inclusions due to the pressures of the game form. He understands the necessity of the form governing not only *what* historical content is represented, but *how* it is done and *why* it is done so in a particular way. He is making implicit judgements about the game in terms of GP3, though also uses the game *form* as *evidence for argument* (GP2) about why it may not be entirely accurate.

Other consumer participants made similar insights:

I recognise that there's a clear distinction between gameplay and history. Obviously, there's things you've got to do in a novel, things you got to do in a TV show, and there's things you've got to do in a game that make the experience more cohesive... [...]. ... There's all sorts of things you've got to do to make a medium work. Whilst it's nice when things tie up, and the historical accuracy is good to see and it's pleasant when you come across it, you can reference it, it wouldn't lessen my enjoyment of the game for it to not be historically accurate.

(Danny, Consumer – non-history, Final Interview)

From Danny's statement, it is clear that the participants have preconceptions about what they expect different media to offer in terms of how accurately they represent history, based on the perceived affordances of the respective medium. Danny makes *insightful inferences* about these media as sources (GP1) based on his understanding of how they differently structure their histories. Danny finds it pleasing when a game is accurate enough that "you can reference it", indicating that he *corroborates inferences from a single source* [the game in this case] *with info from other sources* (GP5). This points to the subjectivity of different players' experiences with these games and other media, something explicitly highlighted by other participants:

[Y]ou think "well: it's a game." It's not trying to be realistic, it can't be everything to everyone and at the end of the day... the mechanics and everything else in the game, it has to be entertaining otherwise no one will play.

(Pete, Consumer – non-history, Initial interview)

I prefer a balance between authenticity and game-play. Of course, historical accuracy can mean different things to different people.

(Alwyn, Producer-AARs, Single Interview)

Pete reiterates that a game must be entertaining, but that the lack of realism (inauthenticity in other words) is due to games requiring interesting mechanics. That a game cannot adhere to everyone's perceptions of realism and accuracy highlights his awareness of the subjectivity involved in experiencing a game.

As stated previously, authenticity and gameplay are perceived as the opposite sides of a continuum, indicated by Alwyn's assertions that 'accuracy' itself is subjective and how someone may interpret the term, or perceive a historical representation, varies between different people. Both Pete and Alwyn appear to be making *insightful inferences* from the games (GP1) but more so they are *asking questions through sourcing* (GP3) in terms of *who* is playing the games, making judgements about its perceived authenticity, and how these judgements must vary depending on these subjective experiences. Although in this research, 'accuracy' refers to the agreed-upon facts of the past and authenticity is a subjective perception, it appears the participants used these terms interchangeably, though with both objective and subjective meanings.

5.4. Cause, Consequence, and Counterfactual Histories

There was significantly less evidence for GPs 1 & 2 for this theme compared with GPs 3, 4 and 5. Consequently, GPS 1 and 2 are only discussed briefly. The implications of participants not particularly demonstrating particular guideposts is given in 7.3.

Through the course of analysis of these guideposts, over half specifically referred to counterfactual histories, i.e. GP5. This indicated that counterfactuals were an important element of player's engagement with these games. Accordingly, the first half of this section addresses GPs-1-4, and the second is dedicated to GP5.

5.4.1. GP1: Student identifies multiple short-term and long-term causes and consequences of an historical event and recognises their complex relationship.

Jose highlighted how he engaged in *assimilative* activities on game forums in order to complement his gameplay experience:

[H]istorical events need certain conditions to be met in order to trigger, though some of them only require reaching a specific date. To give you an example: ... to trigger “the Kingdom event” and the “Imperial event” the following requisites are needed (citing an EBII thread):

- *“Kingdom: to become a kingdom, you need at least 7 settlements and to build the Caucasus Tribal Government building in at least 6 of them.*
- *Empire: to make the kingdom into an empire, you need at least 15 settlements, including Armavir, Babylon, Ekbatana and Antiocheia. The culture in Armavir also needs to be less than 50% eastern tribesmen for the event to trigger.”*

(Jose, Consumer – non-history, Initial Interview)

Jose gives the multiple prerequisites the game requires before certain events will occur: a good example of how games themselves make arguments about cause and consequence. He requires settlements and governmental buildings, implying the importance of construction when people are co-located together, where the idea that settlements exist under a form of centralised government indicates people require a political hierarchy to organise them. Certain settlements (Armavir, Babylon, etc.) are considered more valuable than others because of where they are situated (e.g. due to resources available or strategic importance). Lastly, as having fewer “eastern tribesmen” is considered more beneficial to Empire in the context of the game, presumably due to the associated skills (or lack thereof) these specific groups have.

Historical games by their very nature are reductionist, it being impossible to recreate the exact circumstances of a historical event even if all of them could be known. Yet the game approximates some of these causal factors, allowing Jose to see the consequences of his actions – his agency – within the game.

5.4.2. GP2: Student analyses the causes of a particular historical event, ranking them according to their influence.

With GP1, the learner demonstrates their understanding by identifying multiple causes and consequences of historical events. This naturally overlaps with GP2, where by identifying these causes/consequences, the learner can identify which of them they perceive had the most or least impact on said events. As Mark exemplifies,

I think they [games] can give more of a feel of the minutia that really changed how you lived.but I think that a lot of history is driven by the economic realities... of getting calories into bellies... [I]f you...[play] the Rome [Total War] games, Or Europa Universalis, you begin to see how the technological developments... [of] Rome would not have existed without the Mediterranean. And the Mediterranean kind of demanded that Rome exist. [T]he ...[more] ports you could open and the more trade you could have coming into the Mediterranean, the bigger you were ... In order to drive that prosperity there was so much motivation to do that.

(Mark, Consumer – History, Initial Interview)

Mark perceives one of the main drivers in Rome's technological development – and indeed history in general - is economic, particularly in terms of providing food for the populace and the associated financial costs. In this way, he *analyses the causes* (Mediterranean, number of ports, trade, food supplies) *of an historical event* (the technical development of Rome) *and ranks them according to their influence* (GP2) judging that the fiscal requirements of ensuring adequate food

supplies as the most influential driver. Despite the plausibility of Mark's assertion here, he is clear that this is his interpretation. This suggests opposing interpretations could be equally plausible, making it difficult to state whether his interpretation is the correct one, as history is full of subjective and competing interpretations of events.

Mark cites two games that demonstrate the nuances of how people in the past lived: *Rome: Total War* and *Europa Universalis*. These games are conceptual simulations, though how the causes and consequences of historical events are represented varies widely depending on the nature of the game. This was evident especially to participants' understandings of GP3.

5.4.3. GP3. Student identifies interplay between the actions of historical actors and conditions at the time.

The majority of participants demonstrated an understanding of GP3, which appeared so prevalent due to the way GP3 maps to the affordances of the game medium. Historical actors affect and are affected by the contemporary social, political, economic and cultural conditions. So too is the player's *agency* within a game – what they can do within it - impacted and constrained by the game *structures*: i.e. the rules and mechanics. Historical game rules/mechanics often directly represent the underlying historical conditions, with the player's agency approximating the historical actor's (in)ability to affect these conditions. There is a tension between agency and structure in historical games, as there was between historical actors and their contemporary conditions. This congruence between a game and GP3 was a key finding for which this research has provided particular insight.

Gareth referred to the different tensions between game genres directly, comparing *Company of Heroes*, a Real-time Strategy (RTS) game to Grand-Strategy games:

[S]omething like *Company of Heroes* has a campaign that more or less follows a historical narrative, so to the extent that's accurate (they tend to draw quite heavily from Hollywood), you'd learn that story quite well. Whereas the grand

strategy games give you more latitude to shape your own path, which can deviate quite significantly from history, but you might gain an understanding of how some of the mechanics of an empire worked, etc.

(Gareth, Consumer – non-history, Initial interview)

Although RTS and Grand Strategy games have similarities, Gareth observes the fundamental difference between them is narrative. He states *Company of Heroes* (2006) would help a learner to recognise the importance of events through the game's *story*. Here there is clearly an overlap between the Historical Significance theme, in particular GP3: *a learner identifies how historical significance is constructed through narrative in historical accounts*. Due to the increased focus on narrative in RTS games, the players' agency is reduced in the game world as they must adhere to the game's narrative of events to progress. This means the structure of the game is stronger, as the player has less agency to affect it. Conversely, Grand Strategy games have much less narrative focus, meaning the player constructs their own (ludo)narrative through their in-game actions. The impact of the game structures on the player is less rigid, allowing them more agency to shape the narrative. By highlighting the narrative differences between these two genres, Gareth implicitly demonstrates his understanding of the tensions between player agency and game structure, and historical agency and contemporary conditions by association, that vary depending on the type of game being played.

Mark also commented on the various levels of (historical) narratives included in different genres of games

I want to try out variations when it comes to history, I kind of want to build my own story. So I think that... the idea that something [a game] has or has not a narrative, I think there's a middle ground there where you have a narrative assisting system, wherein there's not so much an author as... "the authorship" [that] is a conversation between the player and the computer and the designer. And those tend to be the most powerful games, so [in] Europa Universalis you are

creating this alternative history of France or Germany or Britain and obviously the design nudges you in certain ways. [...] Europa Universalis... gives you goals so if you're playing as England you get a bonus for unifying the British Isles. And you obviously get nudges ...and... you create your own story but that's what gives me a context for it.

(Mark, Consumer – History, Initial Interview)

As a software developer, Mark has an increased awareness of the role of developers in constructing digital games. His assertion that grand strategy games include “narrative assisting systems” that function as an intermediary between the player, the developer and the game indicates he perceives the nuances of the interplay between agency and structure within historical games. The developer provides the player with multiple potential options (causes) to choose from, which subsequently impact the game’s narrative, showing the consequences of those actions. The player’s *agency* to choose between many options means that they are the co-creator of the game’s narrative in conjunction with the developers. And yet, both the player and the developer must act within the constraints of the rules/structures of the gameworld. In this way, the developers effect the simulation of both the *contemporary conditions* as well as the extent of the *agency of historical actors*, as represented by the player, within a game.

Mark refers to how the game “nudges” him in certain directions by offering bonuses for achieving goals with certain factions. The inclusion of these goals give him context for a faction, where the importance of obtaining narrative context refers back to 5.1.3. However, where we saw in 5.1.3 that this narrative context was most commonly achieved through *assimilative* activities outside of the game, for Mark, this narrative context is achieved *experientially*. The game provides him with a narrative context for his counterfactual play through of the game by the suggested goals included within it.

Other participants saw this tension between agency and structure to be far more explicit:

I remember playing ... [a scenario] a few times until I realised there's no use creating the soldiers back in Greece, because by the seven or eight turns it takes them to come all the way to you [on the other side of the map] they might have been ambushed ... you've got to get mercenaries and build up an army as quick as possible...

It's almost like the campaign forced you into a particular strategy and a particular way of doing things...

(Pete, Consumer – non-history, Final interview).

Pete refers to the *Alexander* expansion for *Rome: Total War*. The game is non-linear and does not adhere to a rigid historical narrative, so it is interesting to see that like Gareth previously, Pete perceives that the structure of the game still applies pressure upon him to make certain decisions.

This highlights some decisions as being 'better' than others – of being easier or having beneficial consequences – for the player's progression. He sees he has less agency within the game in terms of the decisions it is wise to make, as the game encourages the player to take some decisions to make the campaign victory achievable. This again highlights that different game genres, and even slight mechanical or narrative variations of individual games, can produce different understandings of GP3 and Cause and Consequence more broadly. It also introduces the idea of the perceived difficulty of playing counterfactually or in divergence from the perceived appropriate strategy, discussed further in 5.4.5.

5.4.4. GP4: Student differentiates between intended and unintended consequences.

Evidence of several participants obtaining GP4 was prevalent within the data. This firstly was in terms of participants taking the same actions in different playthroughs of games that produced different consequences. Secondly, through seeing loss as an unintended consequence, players learned from their mistakes and rectified them within the game. Finally, knowledge of past losses allowed participants to learn from the mistakes of historical actors, and rectify these perceived

mistakes accordingly within their games. This notion of the participants making different decisions within a game to those made by historical agents also has implications for GP5, as games allow the player to diverge from historical record, creating their own counter historical narratives of the past.

Data has been selected that exemplifies the three manifestations of GP4 within the transcriptions, where Danny demonstrated GP4 quite succinctly:

You could play the same game and restart it a couple of times and you don't necessarily get the same outcome even if you do the same things. Different nations... [behave]... differently and stuff.

(Danny, Consumer – non-history Initial interview).

Danny's statement here shows how games can instigate an understanding of historical contingency, i.e. that history is often constrained and impacted by (often) random events. Historically speaking this contingency can be anything, e.g. the environment, weather, technological developments, or as Danny's suggests, the free will of historical actors or nations. Due to this contingency, players are left uncertain as to the outcome of their decisions, and are then able to evaluate whether the consequences of their actions are intended or unintended.

The differentiation between intended and unintended consequences most frequently manifested with progression, or winning, as the over-arching intended consequence, and loss as the ultimate unintended consequence:

I much prefer games which enable players to take time to think, to evolve strategies and to learn from mistakes.

(Alwyn, Producer-AARs, Single Interview)

A mistake by its very nature is an unintended consequence. Alwyn's data above highlights how he perceives mistakes in his campaign and how he learns from them. In personal correspondence (for the purposes of 'member checking', see 3.13) he stated he also ensures he can recover from

and rectify perceived mistakes within a campaign, without reloading or restarting a game. In this way, he learns in a similar way that historical agents would learn from unintended consequences, using his knowledge of perceived mistakes to inform future decisions.

This said, unlike in history where mistakes can rarely be un-done after the fact, games do allow players to try things differently. Games' replayability gives players an advantage not afforded to historical agents: the ability to learn from mistakes and make different choices or decisions in future playthroughs or campaigns. Although this may not necessarily reflect the actual circumstances and options available to historical agents, it does nonetheless demonstrate how games can elicit an understanding of GP4 through their simulation of these elements.

Other participants used their existing knowledge of the perceived mistakes of agents in history to rectify them within their own campaigns. Mark refers to the battle of Cape Ecnomus between Carthage and Rome c.256BCE:

I had the option of either... engaging the Celts or I could go down to Sicily and take out the pirates and I could start a war with Carthage. I actually broke from historical precedent because I did not want to spend all my money on the navy and I went in and took out the pirates in Sicily, but I did not engage Carthage until later. Instead I focused on expanding into Dacia and Senegal because I remember all the problems that the Romans had in engaging the Carthaginians in warfare. [...] I don't want to spend all the resources building up the navy, I want to gain some victories and increase my popularity, and then I will go and take out the Carthaginians but through Spain because that was just a way better option for me, rather than trying to engage in a sea war.... specifically I remember how much trouble they had so I tried something different.

(Mark, Consumer – History, Initial interview)

Mark's desire to act differently to the Romans was not because they lost this battle historically, but because of the consequences he perceived in the way they *won*. In his eyes, the financial

drain on the Romans caused by moving troops by boat was a risky option that didn't play to the legion's strengths, i.e. marching overland. When simulated within his gameplay, he instead took an approach he saw as more efficient and economically viable. Therefore, it is not necessarily loss in itself that is an unintended consequence, but also the difficulty of the win and the associated price paid for the victory. This meant he was effectively learning from the mistakes of historical agents to make it easier for him to win his own game campaign, even though this led him to play counterfactually.

5.4.5. GP5: Learner demonstrates that the events of history are not inevitable.

As seen under GP3, some participants had the perception that replicating the path of the historical narrative within their game campaign, was the easiest course of action. Interrelated with this idea was that the majority of participants perceived playing counterfactually was more difficult, giving additional support to this idea from an alternative perspective:

[I]t's ridiculously hard I think [to play counterfactually]... It's almost taking a hard game and see[ing] how difficult we can make it...

(Pete, Consumer – non-history, Final interview)

I tend to play as the Romans so I'm not generally looking for Carthage to win... I've played the game several times over and obviously Carthage starts off as quite aggressive and quite anti-Roman in the game. But there are times I've played the game where I've left them alone, I've won them over, I've made them an ally, and it's quite tricky that, because...it doesn't always work.

(Danny, Consumer – non-history, Initial interview)

I don't think I've got enough hours in the day to set up that kind of stuff.... trying to do the counterfactuals... If I play the game for long enough and am putting the amount of hours in, then yeah. I'd go a little bit wild to try and keep the game fresh.

(Mark, Consumer – History, Initial interview)

I also think counter-history is fun... I've never succeeded but there's a lot online about playing Total War: Attila, and keeping the Western Roman Empire afloat and rebuilding it, etc.

(Gareth, Consumer – non-history, Final interview)

These data demonstrate the participant's perceptions of counterfactual play as more difficult than following the path of the historical record. They cite a variety of reasons for this perception: aggressive artificial intelligence (AI); it is more time-consuming; or that they simply haven't been victorious when playing this way. However, here there are contradicting perceptions when viewed in light of the data relating to 5.2.3.2, even by the same participants. We saw the perceived difficulty of a game was equated with a more authentic re-enactment experience, and also that mods making warfare longer-lasting was seen to more reliably represent the experiences of historical agents. Both here and in 5.2.3.2, exactly the same reasons (challenge/difficulty, time taken) are cited by players, though with counterfactual play these did not make participants' experiences more perceivably authentic.

The participants did state, rather paradoxically, the ways they actioned "authentic" counterfactual histories, though challenge and time were not a means that this was achieved. The perceptions relating to challenge and time arose in relation to both themes but the *contextual framing* was very different. If the participants followed the path of the historical record and found it challenging and time consuming, this produced a perception of authenticity. If participants

knowingly played counterfactually, despite it taking longer and increasing the challenge, they did not cite this as being an authentic experience. This framing, in conjunction with time and challenge, produced different perceptions of authenticity within similar play contexts, where the only difference was how the participants approached their gameplay.

5.4.5.1. Authentic Counter-Histories and “What-if Realism”

Many participants paradoxically (given that counterfactual history by its very nature cannot be authentic) still aimed to play counterfactually in an ‘authentic’ way. Leon stated when playing as Carthage against Rome in *Total War: Rome 2*:

I would try to... look up how Hannibal’s army was composed and at least his family members – what they had – in terms of forces and I would try to replicate that as well as possible...

(Leon, Consumer- non-history, Initial interview),

Although Leon’s intention is to diverge from historical record by winning the Punic Wars against Rome (where historically Rome defeated Carthage) he ensured the circumstances were replicated as authentically as possible according to the historical composition of Carthage’s forces. With the benefit of hindsight, he could have changed or upgraded units to make it easier to succeed against Rome. However, he explicitly chose against this to make the counterfactual play more authentic, by not using extra advantages as a player that the Carthaginians did not have historically. Therefore, the only differences between the historical and virtual Carthaginians to Leon would be the decisions they make in approaching the conflict, in effect, demonstrating that the historical victory of the Romans over Carthage *was not inevitable* (GP5). This is indicative of the idea that it is not necessarily only winning that is important to players, but also how that victory is achieved and how authentically it reflects historical events.

Where Leon replicated the constitution of Hannibal's army before undertaking counterfactual actions, Jose plays counterfactually differently:

I tend to play following some aspects historically but I don't like to follow the chain of events to the T: I prefer changing history, not following it. However, I'd rather change history in a "logical" way... e.g. playing as Hayasdan [ancient Armenia] the more logical path of expansion would be conquering the Caucasus and then going after Anatolia, not sending your forces 2,000 km west to fight Rome.

(Jose, Consumer – non-history, Initial interview)

In 5.4.4, Mark ascertained the Romans' actions were not the most efficient or cost-effective means of success, resulting in him making different choices in his game campaign that rectified these perceived mistakes. Jose similarly sees Hayasdan's forces being sent to fight Rome as a mistake, when there was a different option available that seemed more logical for him to utilise. Although Jose plays counterfactually, he still assesses what the most logical course of action *would have been*, and implements this within his game.

These ideas of historically logical or plausible actions are reminiscent of 5.3.2, where modders often "logically extended" history, or included aspects that were historically plausible even if not totally accurate. Jose engaged in a similar logical thought experiment but in relation to his actions within the gameworld. Both modders and Jose employ the same kind of thought process, making plausible historical assumptions, but the modders did so *adaptively*, and Jose *experientially*. This indicates the complex relationship between the ideas of authenticity/accuracy and how these are applied even to counterfactual narratives, and the contradictions that these complexities can cause.

Alwyn used the term 'what if' realism to describe the relationship between counterfactuals and perceived authenticity:

My preference is for what I call 'what-if' realism rather than 'strict realism'. For example, I do not use a mod to prevent Celtic factions from using artillery in Rome II. A strict realist would want to prevent Celts from using artillery because they did not do so in actual history.

(Alwyn, Producer- AARs, Single Interview).

This reiterates that counterfactual game campaigns are actioned in ways that players consider to be perceivably authentic. However what is also pertinent is Alwyn's example that Celtic factions in *Total War: Rome II* (2013) can use artillery, despite this not being the case historically. Although a player may choose *not to* undertake counterfactual actions, or use inauthentic units within a game this doesn't mean that an opponent (AI or human) would also choose not to. The inclusion of such elements allows them to be used, meaning players are effectively forced if not to *use* these elements, to at least confront and combat them. This indicates that the counterfactual elements in the base games are compulsory for players whether they choose to specifically use them or not, further demonstrating how players perceive the rules and mechanics of games often force them into particular positions.

It is precisely the inclusion of perceived counterfactual elements in the basic games that modders wish to *adapt* (see 5.3.2.1) by simply removing perceivably inauthentic aspects. Alwyn confirms this in reference to *Empire: Total War* (2009), that although set in a different historical period (18th Century), is still relevant here:

I like to use mods which remove units (naval artillery vessels, bomb ketches and rocket ships) which were not used historically as they can be used in the game. (Historically, naval artillery were used to bombard large targets on the shore, such as cities; in the game, they can be used to attack other ships).

(Alwyn, Producer-AARs, Single Interview.)

Alwyn talks of "what if realism", but we can see from his data here that this can only be stretched so far. There appears to be a point where the counterfactual elements become too pronounced

for him to countenance within his campaign, meaning he uses a mod to remove those elements. There appears somewhat of a contradiction here, though I suggest this is more of a continuum than a contradiction. Once a counterfactual element within a game moves along the continuum to a certain point, this results in a perception of inauthenticity, meaning players will wish to rectify this inauthenticity by using mods, choosing historically appropriate units, or making decisions that are historically plausible. It is difficult to ascertain within this data at what point a counterfactual moves to being unacceptable, as the subjectivity of experience with these games means a player's tolerance for the inauthenticity of counterfactuals will vary, hence the suggestion that this may be a continuum. More details about how the producer participants demonstrated GP5 are given in the next sub-section.

5.4.5.2. Counterfactual AARs and Mods.

Alwyn further defined his conception of “what-if realism”:

[T]he fact that the Roman army used artillery gave them a decisive advantage against Celtic armies in some battles in present-day France and Britain. However, Celtic tribes includes [sic.] skilled craft-workers; I see no reason why their carpenters could not have learned how to make catapults, for example. ‘What-if’ realism means that I am interested in exploring how Celtic tribes could have fared against Roman armies, if both sides had access to artillery.

(Alwyn, Producer-AARs, Single Interview)

Alwyn used this AAR to explore how specific changes could have altered history, but he does so in historically plausible ways. He doesn't give Celtic forces advantages that they *could not* have had historically, instead using logic to determine that if they had skilled craftsmen, then they could have feasibly had made catapults. While demonstrating GP5, his data also highlights the nuances evident when considering the overlap between counterfactuals and authenticity, in terms of what was, or could have been, historically plausible.

The Govna also wrote a counterfactual AAR called *The Restoration of Epirus*, based on the idea that the Epirotes could defeat the Roman Republic before it became an Empire. He outlined why he writes counterfactual AARs:

The addictiveness is catalyzed by the need to reveal the unknown. Even though I am the sole author of the AAR, I still don't know what will happen in the next chapter, it's all related to what happens in game. I can assume what will happen based on my knowledge of AI behavior [sic.] but still get surprised from time to time.

(The Govna, Producer-AARs, Single Interview)

If The Govna followed the path of the actual historical events in his gameplay, he could predict what would happen next as the game structures would reflect that historically Epirus was conquered by the Romans. By playing counterfactually, he upholds the mystery of the unknown, discovering how different choices play out in often surprising ways. He is motivated to do so for his own interest, but also as he feels this is more interesting to his readers:

I wanted to try something I had never done before in a game (Epirus conquering Rome) and thought others may enjoy reading along.

(The Govna, Producer-AARs, Single Interview)

Sharing AARs is clearly an important motivation to playing and writing counterfactually, as Alwyn reiterates:

My AARs are often based on more than one campaign. This happens when I discover that making different choices results in events which would make a better story, or when I start a new campaign to try a different mod, or both. I don't have to make creative calls which don't reflect game events, but I choose to do that.

(Alwyn, Producer-AARs, Single Interview)

We saw in 5.3.1. that AARTists would rarely stray from the events of their campaign, but they may embellish them. This is similarly true for Alwyn, though he may decide to replay a campaign or introduce different factions/mechanics that make his narratives more interesting to write, and for others to read. This demonstrates the relationship between gameplay and writing AARs is not unidirectional where the gameplay affects the writing, but is instead reciprocal and multidirectional, where the intention to *productively* write an AAR also affects how the game is played *experientially*. Intentionally playing/writing counterfactually naturally presupposes that players must have an awareness of what *did* happen according to the historical record. Therefore, they must have previously learned the historical narrative of the events they write about, in order to knowingly diverge from them.

Sebidee and Leonard the Great (LtG) created mods with counterfactual elements, but in different ways. It was previously mentioned in 5.2.5 that Alwyn used Sebidee's mod to play his campaign of the Iceni against the Romans. Although there are existing resources in the basic (unmodded) games that allow for the creation of counterfactual scenarios, the availability of mods like Sebidee's gives AARTists additional tools to create counterfactual AARs. Sebidee outlined his motivations for such counterfactual inclusions:

I also believed that "what if" factions were very important in the game. Total War: Rome II takes place between 272BC and about 70AD but also features playable factions which were destroyed during that period. One example is Sparta which was destroyed as an independent state in 146BC. The problem with this is that a person who plays as Sparta will bring them successfully past 146BC and the development and modernisation of their army should not end after that point... I had to ensure that players could accurately recreate that alternate history. Therefore, I had to ask what a Spartan army would have been like in an alternate timeline.

(Sebidee, Producer-Mods, Single Interview).

Where Alwyn *productively* explored what could have happened if there had been different motivations, priorities, tactics or technology, Sebidee further enables the inclusion of these elements through his *adaptive* activities. In effect, he gives players more of the practical apparatus and mechanisms required to create counterfactual narratives, adding to those already in the basic game. Sebidee's motivation in including counterfactual elements is ensuring players can *accurately* play counter-historically, which he perceives is not achievable without the mod. To do so, he had to logically extend history asking what it may be like if a Spartan army had existed beyond 146BCE and how this could have affected the development of Spartan military units. This creates further links between the Cause and Consequence and Epistemology and Evidence themes, as the same ideas of historical plausibility arise in both sections, despite the apparent contradiction of accuracy and counterfactuals. As outlined in the previous section, modders strive for ways that they can increase a basic game's authenticity, even when including elements that are clearly inaccurate – like the existence of a Spartan Army after the 1st Century CE.

Leonard the Great (LtG) created a mod including elements moving beyond counterfactuals into the realm of pure fiction, which replicated units and historical figures from the film *Centurion* (2010). However, he still aimed to create the units as authentically as possible based on different sources, where his conception of authenticity was based on the look and qualities of the representation:

All of the model components, armour helmets, shield etc. are based on historical evidence save for a few pieces. The composition of a specific unit's equipment is where I did take liberties to maintain the theme of the mod, which is set around 125AD in the world of the Centurion film. Here are a few:

Leather segemeta: No definite evidence on its existence.

Arm bracers- No definite evidence of romans using them

Shield designs based on historical reenactors groups. Illustrations

Armour composition: all ILOR legions use segmenta armour uniformly as it was in the movie reference. In reality...[it] was probably a mixture of segmenta and hamata types

General armour, based on HBO series Rome.

(Leonard the Great, Producer – Mods Single Interview)

LtG mixes the aesthetics of his Roman legion with fiction (*Centurion*, 2010, HBO's *Rome* TV series, 2005-2007) and designs from traditional re-enactment groups. We saw previously (5.3.1.) that modders utilise sources from re-enactment groups in the design of their mods. LtG is similarly aware of the lack of aesthetic descriptions for units, so draws inspiration from both re-enactment replicas and depictions in popular culture. LtG also included Maximus (the protagonist of the film *Gladiator*, 2000) in the mod:

Although this character was not part of the world of "Centurion," Gladiator was an epic movie. I doubt that there is a single player of ROME II that does not love the iconic costume of Maximus.

(LtG, Producer-Mods, Single Interview)

This demonstrates how popular TV and film representations overlap with 'real' history, with the former occupying a prominent place in people's minds. LtG still aimed to recreate the films/TV series authentically when designing the mod's units and characters, even when it diverged from historical evidence: the authenticity he was creating was not in reference to the historical record, but to the popular culture upon which the mod designs were based. This is reminiscent of what we saw in 5.3.1, where AArtists ensured they were contextually accurate to the events occurring within their campaign. LtG is similarly ensuring that the mod is contextually accurate to the film(s) he has used for his inspiration. This data provides further links between this theme and Epistemology and Evidence, despite the inherent contradictions, showing how authenticity is created and perceived in games even with counter, alternate, or fictionalised histories. This also

highlights how different conceptualisations of authenticity are conceived differently by participants depending on their individual understandings of the term, and the contexts they implement it.

5.5. Continuity and Change, the Ethical Dimension and Peripheral Learning

This final section of the findings chapter addresses the Continuity and Change and Ethical Dimension themes. These are considered together, as where Continuity and Change GP3 occurred (*the learner can describe progress and decline and understands that progress for some people may be decline for others*) this was almost exclusively in conjunction with the GPs for the Ethical Dimension. The second part of this section analyses data relating to peripheral learning, i.e. learning mentioned by participants that does not explicitly relate Seixas and Morton's (2013) historical thinking concepts. This terminology is used simply to distinguish these elements from the deeper historical understanding and is not a commentary on the relative importance of such learning. Peripheral learning is included because as it still has relevance to the RQs for this research in terms of what, and how people learn through digital games.

5.5.1 Continuity and Change

There were few references to the Continuity and Change theme made by participants. However, although not describing *varying pace and direction of change*, James did describe how games include specific *turning points* (GP2) or in his words, pivotal moments that govern a game campaign:

I think if [in] any one of these battles that the Carthaginians managed to prevail in had gone the other way, the story would have been very different, I suspect. So I think that's [the game is] probably not too inaccurate in that sense that there's a pivotal moment and that really dictates the direction of the campaign.

As a participant with a historical background, he compares the game's representations of pivotal moments with his existing knowledge, judging how well the game reflects his own understanding.

The other participants that talked more in regard to this theme were largely in terms of *assimilative* and *communicative* activities unrelated to the games (e.g. museum visits), where these external activities lead to their understanding of Cause and Consequence.

The 10 participants who made assertions of any kind in reference to this theme included all 7 consumers with a historical background. This may suggest a deeper understanding of Continuity and Change is something enabled by a historical education. This is not to say that the other participants do not possess an understanding of this theme altogether, only that participants with a historical background were more likely to mention it in this particular dataset.

5.5.2. Progress, Decline, and the Ethical Dimension

When the Continuity and Change theme was referenced by participants, this was predominantly in reference to GP3, as entangled with progress and decline was the perceived ethical implications of decline for certain peoples. In 5.1.2, Redslayer saw the United States as in decline, listing many contributories for his perception, including corruption. He cites these elements by drawing specific parallels with the collapse of the Roman Empire, *using historical accounts to make informed judgements on contemporary issues* (ED: GP5). While America's decline is merely his interpretation of the present, he used the ancient decline of Rome as an analogy or 'historical blueprint' for his contemporary perceptions.

5.5.2.1. 'Caesar's Legion' and Women's Roles

The notion of Rome's corruption was remarked upon by other participants with reference to *Fallout: New Vegas* (2010), a game including a military faction called 'Caesar's Legion'. The *Fallout*

game series are set in a post-apocalyptic world with an alternate vision of the present/future. Within the game, a nuclear holocaust took place years previously, and the player takes on the role of a dweller from a nuclear bunker who embarks on a journey into the outside world known as the 'wasteland'. Two participants made reference to the portrayal of Caesar's Legion, and in particular the *explicit ethical stances within the historical narrative* (ED. GP1):

Yeah, it's a great premise isn't it? Post-apocalyptic wasteland. Let's rebuild the Roman Empire... In the Fallout game, there's not really supposed to be explicit good and bad [factions] but Caesar's legion are explicitly evil. The first interaction with them is you come up on a town where they've crucified everyone and they gave you this speech about how everyone's corrupt ... No. Caesar's legion in Fallout: New Vegas are a bunch of psychopaths.

(Philip, Consumer – History, Final interview).

Philip's statement here is not only indicative of his response to the *explicit ethical stance* (ED: GP1) that the game adopts for the legion but also that their actions casts the Romans as he perceives them in a poor light. Of course, crucifixion was a feature of Roman antiquity, but Philip's rejection of these characters as 'Roman' seems to stem from the fact that they are presented as "explicitly evil", implying he does not feel the historical Romans were thus. Although crucifixions were arguably controversial actions, Philip uses his *knowledge of the historical context to make reasoned ethical judgements* (ED: GP2) about these actions. Philip doesn't see the Romans were explicitly evil "psychopaths", despite the moral implications of their actions by contemporary standards. He makes ethical judgements about them based upon his knowledge of the historical conditions and factors present at the time, and in accordance with his own understanding of those factors.

Mark made additional observations of Caesar's Legion with reference to his *communicative activities*:

[O]ne of the long running debates in my particular community is... Fallout: New Vegas in their depictions of the Legion. There's a long-running discussion of whether or not that is a fair depiction of the Roman mentality and my understanding is that actually the biggest problem with that crew [Caesar's Legion] is – for some this is really contentious – I think it's because of their treatment of women ... Some of the people who aren't as nice use Caesar's Legion as kind of a model of how things are.

... [M]y contention is that they aren't [accurate] as they don't have any concept of the Pax Romana, they don't have any concept of cosmopolitanism... It's like, "is Caesar's Legion really Roman?" And my condition is no. They wear the headdresses but they don't do the things the things the Romans actually... [did].

(Mark, Consumer – History, Initial Interview)

There are many different considerations in Mark's statement. Firstly, he rejects the depiction women's roles within Caesar's Legion as brainwashed, enslaved camp followers, only afforded tasks that are 'traditionally' roles assigned to women (such as healers, or worse, 'breeders'). Mark's assertion that some people with questionable moral values use the Legion as something to aspire to or imitate is morally questionable given women's assigned roles the Legion. This suggests that these people Mark refers to either see women *now* as only useful for breeding, and making lives easier for men, or that they perceive this is what women's roles *should* be. This is problematic given the extent of misogyny in gamer culture, ideas expanded upon in 6.7.

Secondly, Mark doesn't feel Caesar's Legion accurately reflects what his perception of "real" Roman values, like cosmopolitanism or the stability of the Roman Empire: he sees the depiction taking only the worst facets of Roman history (to contemporary perspectives) that serve their own agenda. On the one hand, he uses his knowledge of the *historical context to make reasoned ethical judgements about controversial actions of people in the past* (ED:GP2) in that he perceives Caesar's Legion in *Fallout* misrepresents Roman ideology to make them appear more negative

than they were. On the other he makes ethical judgements about controversial actions not only of people in the past, but of *people in the present*, that is, the players who use Caesar's Legion as a model for how things are. Although this element of the Ethical Dimension is not expressly included within the guidepost, it seems significant given the focus on contemporary issues in the other guideposts for this, and other themes.

5.5.2.2. Ethical Dilemmas of (Digital) Brutality

In 5.2.3.3, James and Mark remarked on the negative emotions they felt through their *experiential* re-enactment of Roman brutality. This idea of the perceived (im)morality of player's actions and their correspondence with the those the Romans took historically naturally overlaps with guideposts of the Ethical Dimension. These overlaps are affirmed by Seixas and Morton (2013, p. 170) and were similarly evident in the data previously outlined.

James suggested (see 5.2.3.3) razing a city to the ground seemed reasonable given the Roman focus on "loot". He found this to be morally reprehensible by contemporary ethics, but did not judge these actions based on the *contemporary standards* (ED: GP3) and instead relying upon his knowledge of the *historical context to make judgements about the controversial actions of people in past* (ED: GP2). He perceives he must undertake these actions in order to progress, demonstrating his perception that progression similarly motivated the Romans to undertake such controversial actions. Though intertwined with the Roman progression through economic accrual and geographical spread was also a decline for the people who have been bereft of goods and land, creating further overlaps between the Ethical Dimension, Historical Perspective Taking, and Continuity and Change themes.

Mark asserted (see 5.2.1) that the brutal practicality that the Romans displayed was clearly a part of their mentality as they perceived themselves the bearers of civilisation. Like James, he uses his knowledge of the *historical context to make ethical judgements* (ED: GP2) about their brutality based upon his interpretation of their mentality. He feels that because the Romans saw

themselves as the bearers of civilisation, this may have negated the ethical considerations in respect to the methods the people were assimilated. Mark perceives that for the Romans, the ends (the Empire's progression and the "spread" of civilisation) justified the means (violence) so in this way he is *cautious about imposing contemporary standards on ethical judgments about the past* (ED: GP3) through his awareness of the difference between Roman and contemporary mentalities.

5.5.2.3. Homosexuality and the Military

The final part of this section refers to conversations between James and his son based upon a shared game experience of *Rome: Total War* (2004):

I think one of the most interesting conversations we have had, [was] ... if you play the Carthaginians, at a certain level of development you can recruit sacred bands, and he looked up sacred bands just to get a little intel about what they did, and was exposed to this facet of the sacred band where they tended to be homosexual and they were encouraged to have relations with other members in the sacred band, as a way of building continuity in relationships and the like. And that raised an eyebrow with him, and ... we talked about gays in the military and this kind of stuff... so for him it's... facilitated discussions between he and I based on a casual LAN game between the two of us.

(James, Consumer – History, Initial interview)

James' describes how their *experiential* activity prompted his son's *assimilative* research and their *communications* based on his son's findings. James' son recognised the *explicit ethical stance* (ED: GP1) within the narrative: that homosexuality was accepted in this ancient context. However, the fact that homosexuality "raised an eyebrow with him" indicates this was something remarkable by contemporary standards, and worthy of discussion. Presumably this is in reference to his son's awareness of various perspectives on homosexuality in society generally, and specifically in

contemporary military forces around the world, given that this is something that has repeatedly been a topic in contemporary news and politics. The implications of this are addressed further in 6.5.

Participants highlighted elements of the past that have been used in the present in ways that create ethical or moral stances. However, where in terms of the guideposts for the Ethical Dimension it is the *assessments of the ethical implications of **historical** actions and injustices of the past that should be remembered and responded to* (ED: GP4), the participants are instead assessing the implications of *contemporary* actions and injustices and are instead responding to those. In this way, a greater understanding of these contemporary issues and the ability to reflect upon them could arguably be just as valuable to the learner of history as their knowledge of their counterparts in antiquity.

5.5.3. Peripheral Historical Learning

The final part of this section addresses the elements related to peripheral learning. A deeper understanding of the historical thinking concepts and the ‘facts’ are essential for a comprehensive understanding of history. As Seixas and Morton note, ‘[j]ust as the concepts make no sense without historical content, historical content cannot be truly understood as anything other than a series of disconnected bits of data to be memorized without a grasp of the historical thinking concepts (Seixas & Morton, 2013, p. 4).

It became apparent through the analysis that peripheral learning was occurring in two ways, the first the peripheral learning of history, such as names, dates, facts, or geography. This is grouped under two headings: units, armour and weapons; and geography. The second I refer to as ‘peripheral technical learning’ as it includes learning that occurs that does not relate to history, i.e. game/mod design and installation, fixing bugs or glitches, and creative writing tips. However, these technical learning elements underpinned the participants’ ability to learn about history in other ways.

5.5.3.1. Units, Armour, Weapons

Participants were asked what they felt they had *experientially* learned about ancient Rome directly from the games, with the majority citing unit types, armour and/or weapons. Jose gave some specific examples:

[A]nother thing I learnt in-game was the different types of armour and weapons used by Roman troops: the lorica hamata (chainmail), lorica segmentata (the most famous one), the gladius, the scutum, the pila (plural for pilum).

(Jose, Consumer – non-history, Initial interview).

Other participants talked in more generalised terms of what can, or cannot be learned from historical games:

[V]ery generally, VERY very generally, you get the lay of the land. You know, who owns what, who uses what.

(Philip, Consumer – history, Initial interview)

I think it's fairly impressionistic... I'm not even sure they've helped me understand the evolution of the peoples involved. I can cite types of spearman and neighbouring tribes, but probably know less than I think I do.

(Gareth, Consumer – non-history, Initial Interview)

These data exemplify the participants' perceptions of the limits of games, as only able to introduce a player to the broader historical facts behind their aesthetics and mechanics. This perception is revealing in itself, as participants self-report their inability to learn much from games beyond the superficial. Pete elaborated further on the types of things he has learnt:

[C]ould a Roman legionary really throw his javelin this far? And how fast would they do it? And what ammunition would they have to reload? That kind of stuff, yeah, I'd put that [learning] down to the mechanics of playing a game at the end of a day.

(Pete, Consumer – non-history, Initial Interview)

These historical facts underpin the deeper understanding of Seixas and Morton's (2013) framework. For example, knowing the logistics of how a legion fought, what they used and what they wore in comparison to other historically contemporary forces affords a better understanding of how the Roman Empire was able to conquer lands so comprehensively. As such, although these elements of learning may be considered peripheral in the eyes of participants and in terms of deeper understanding, they are nonetheless important to historical learning more broadly.

5.5.3.2. Geography

Many of the participants stated games gave them an overview of ancient geography. For example:

I think that the games are very good to see where ... factions are placed, for example the Galatians or something like that, but not more than this.

(Felippe, Consumer – History, Initial interview)

Felippe is clear that the games can give you an idea of the geographical locations of certain factions, but also other learning directly from the games is limited. Philip perceived that this was in fact one of the *only* things that historical games had taught him:

From videogames, the only thing they can give you is a general idea of the geography. That's it. Because of Rome [Total War] 1 & 2, I know that the Roman Empire spanned from Hadrian's Wall to Afghanistan... [B]ut even so, that might not be true so these things are difficult.

(Philip, Consumer – History, Initial Interview)

Philip questions the games' representation of the historical facts in reference to their Geography, though simultaneously states that geography is the only thing a player can learn from games, indicating he sees the games as a potentially legitimate source. It is thus interesting that players still question the representations they see in-game, even when they are presented with perceivably historical facts.

Calum similarly mentioned games' ability to provide an overview of ancient geography:

I talked to a member of my English Department about the amount of Geography he learnt from Rome Total War, as well as other Total War games. It stemmed from another member of the Dept. asking how our knowledge of medieval countries' boundaries was so good.

(Calum, Consumer – History, Diary.)

Although a *communicative* activity, both Calum and his colleague are conversationally referring to the geography they had learned through *experientially* playing the games. However, unlike Felipe and Philip who questioned the games' representations of historical elements, the fact that another colleague asked how their knowledge of country boundaries “was so good” is tantamount to Calum's acceptance of their geographical depiction as factually correct. Calum expanded upon his diary entry in his final interview:

It [his gameplay] accompanied formal study so perhaps a mish-mash of the two. I would say I've learnt more from books and maps but it certainly helped to reinforce the interactions between different areas.

(Calum, Consumer – History, Final Interview)

Calum studied ancient geography formally, so it becomes difficult to pinpoint what he has learned from which source. Yet, his assertion that playing the games reinforced the learning gained from books and maps is a significant one in the context of this research, as it indicates the complex

interplay between formal, informal, and even incidental learning taking place through players' engagements with historical games, and how they overlap and bleed into one another.

While nearly all the participants talked about elements they had learned from the game, at the same time they also explicitly stated how an introduction to the superficial facts had functioned as a springboard to their historical learning outside of the game. As Symon noted:

I've found some interesting details inside these games sometimes. You know, for example, the structure of pre-Marian Roman army... the triarii line, the principes line, the hastaati line for example, and some information about the buildings of the time... aqueducts, and so on...I mean usually they give me the boost to get some knowledge.

(Symon, Consumer – non-history, Initial interview)

We have already seen (5.1.3, 5.3.1) that participants used the historical content in the games as inspiration for further study. Historical facts seem no different in their ability to engender additional informal learning in players than those of deeper historical understanding, perhaps due to the relative ease of obtaining answers to factual questions. However, other participants were critical of the extent to which even peripheral learning could take place through their game experiences, precisely because of prior learning activities outside of the game:

The gameplay, while it does inform me occasionally, or something pops up that I have to check and look at... all these sort of things that I might have learned from the game, I'd already learnt from that background knowledge. If I was just playing the game, obviously, it would teach me a lot more.

What they can teach me on any specific day might be limited. It doesn't mean they haven't taught me things across the whole piece across the, whatever it is, 10 years since Rome [Total War] came out.

(Danny, Consumer – non-history, Final interview)

Danny's statement here is indicative of a perhaps obvious point: if you are already aware of the historical facts within a game, naturally this reduces what can be learned from them. His statement here is important in light of the learning occurring through and with games as a whole, as a player's previous familiarity with the games and/or the historical context may confound learning when empirically studied. This has implications for this research's study design, discussed in detail in the 7.3.

5.5.4. Peripheral Technical Learning

This section addresses the evidence for peripheral learning that does not relate to history directly, but demonstrates the non-historical learning occurring with historical games and through associated activities. This includes participant's increased understanding of modern foreign languages (MFL); English writing skills, awareness of bugs and glitches; and technical help. These technical skills can be transferrable to other parts of life, and also underpin participant's ability to play historical games, in turn allowing learning of history to occur in relation to them.

Most of the data related to technical learning was in reference to resolving/utilising bugs or glitches, or of obtaining help with technical issues. However, one respondent had a different perspective that appeared significant in the context of the research questions. Jose is an Argentinian participant, whose native language is Spanish.

[O]ne thing I benefited a lot from when playing these games is the use of English-Spanish dictionaries to look up for words and expressions I didn't know. So, in addition to learning history I also improved my vocabulary.

(Jose, Consumer – non-history, Initial interview)

Jose increased his knowledge of English through his game experiences. He engaged in external *assimilative* activities for language learning, where this linguistic understanding of units and expressions aided him playing the game. His new English vocabulary is also evidence of potential

learning transfer in the application this new vocabulary in different situations. It is difficult to say the extent of this transferability as his learned vocabulary would be presumably be game-specific and contextually related to ancient warfare, but nonetheless this highlights how even historical games have the potential to aid learning in unanticipated ways, allowing participants to use new knowledge in different contexts.

Like Jose who increased his English vocabulary, AARtist participants used forums for feedback on their AAR writing, also perceivably aiding their language skills:

[C]omments from readers provide useful tips on shortcomings in my writing, such as the need to give readers more hints about where my story is going, or that a particular incident could have been taken out.

(Alwyn, Producer – AARs, Single Interview).

This data indicates the importance of feedback for AARtists, as the *communications* they have with their readers allow them to incorporate this feedback into their subsequent *productive* writing activities. Alwyn's examples here are all illustrative of the nature of the feedback that he has received to make his AARs more narratively coherent. In turn, this coherence serves to make the AAR more interesting to read, resulting in more readers, and presumably more feedback on his writing. Again, like modding communities, feedback from others is integral to the creative *productive/adaptive* activities, allowing them to learn from others through *communicating* with them. This could also be viewed as equivalent to academic writing, where feedback from peers or colleagues is integral to that process also, in informal and formal (i.e. peer review) ways.

Bugs and glitches had two implications in this research. The first was that participants were able to utilise these bugs to their own advantage in the game to progress their campaign more easily. As Legend of Total War (LoTW) stated:

I found out a whole lot of bugs that I was able to exploit to get the around the map a lot easier. I found out how to completely confuse the AI [Artificial Intelligence: computer-controlled NPCs] so they just had no idea what to do in a given situation...

(LoTW, Producer- LetsPlays, Single Interview)

LoTW had *experientially* understood the AI actions/mechanics, utilising them to make his campaign easier, or quicker. As a professional YouTuber, LoTW is keen to ensure that his videos are interesting and novel, to keep the attention of his subscribers so they don't lose interest.

As Symon outlined:

When I started watching...YouTubers play Total War I found many interesting things I couldn't find myself.

(Symon, Consumer – non-history, Initial interview)

He expanded on this in his final interview:

Tips and tricks tended to come from LetsPlays, as it is easy to see how they occur more than reading and trying to apply them.

(Symon, Consumer – non-history, Final interview)

Through Symon's *assimilative* activity of watching LoTWs *experiential* playthrough of a game, he was better able, in his mind, to see and use the tricks he discovered through the course of watching. Reading tips and trying to implement them in practice he found more difficult than having a visual demonstration of how to enact those tactics within the game. Of course this is entirely contextual, as we have seen previously (5.3.1) that textual sources were more often readily available and perceivably legitimate sources of information. Though for Symon, the knowledge he required was more efficiently relayed through a purely visual rather than a textual medium.

There are layers of learning activities amongst and across different players. LoTW *experientially* learned the usefulness of in-game bugs, before *producing* a LetsPlay video including his findings. This was *found* and *assimilated* by - and even *communicated* through the commentary to – players like Symon, before these players reapply their new-found knowledge to their own game campaign. As such, there are complex cyclical and reciprocal learning relationships and activities prevalent in the intersection between games and LetsPlay videos, where each player draws different conclusions from what they view or read, and how they play a game, that are then communicated back to other players through videos. The complexity of these networks means the scope for mapping them and the consequent impact and extent of learning would undoubtedly be a fruitful avenue of further research.

More commonly, bugs and glitches these were a source of frustration for participants. Often, participants would use game forums to find out how to resolve these issues, in *communicative* and *assimilative* ways:

[T]he posts and threads I created were generally questions on how to solve or avoid problems (bugs) that affected my game experience/performance or questions about how certain game mechanics exactly worked.

(Jose, Consumer – non-history, Initial interview).

Like Jose, many participants turned to game forums to *find information* on how to resolve their game issues. However, forums were also used for finding assistance with technical aspects:

I would go a lot [to forums] to get information on the installation instructions for specific mods.

(Darren, Consumer – history, Initial interview)

Mods for games are predominantly made by fans/players and are not officially licensed or endorsed developers, but still have to integrate with the official game(s). This means there is a

level of technical expertise required in installing them so they function correctly with the basic (un-modded) game, and it is this technical learning that players like Darren engaged in.

Modder participants also found forums a valuable source of technical assistance for their *adaptive* activities:

Prior to Rome II I had no 3d modelling knowledge, so a great deal of time is spent learning new programs and incorporating my creations into the game. Countless hours going over tutorials and videos, as well as communicating with other modders.

(Leonard the Great, Producer – Mods, Single Interview)

As LtG's data demonstrates, the *adaptive* process of modding requires a level of technical expertise gained through a variety of *experiential* (learning new programmes) *assimilative* (watching tutorials) and *communicative* activities (feedback/ advice from other modders). We have seen in previous sections how modders research the historical background to create their mods and their reasons for doing so, but it is also important to recognise the technical learning taking place in order for these historical aspects to be implemented. Historical aspects become entirely irrelevant if not incorporated into a functioning mod, so technical expertise is consequently important to the learning of both modders and the players of modded games alike.

5.6. Chapter Summary

This chapter has outlined the findings for the second study, organised by Seixas and Morton's (2013) elements of historical thinking. Although the chapter was structured in this way, it has been highlighted throughout how there is considerable overlap between different themes, as well as individual guideposts within the themes. This was similarly seen in regards to Conole's (2013) learning activities, where often they would seamlessly blend, or participants would come to similar conclusions via different learning activities.

Narrative was at the forefront of player's experiences with historical games, where they would seek the contextual narrative of a game's events or write their own narratives, to make their play experience more immersive. This immersion in their games naturally overlapped with Historical Perspective Taking, with immersion facilitating a more authentic re-enactment experience within their campaigns. Their immersion in the games was also linked to the extent they emotionally suffered through their experience, where increased suffering was equated with a more authentic re-enactment experience as they perceived it better reflected historical agents' suffering.

Intrinsic to the components of an authentic re-enactment experience was how participant's made judgements about the reliability of sources they used with details provided about how they evaluated them based on their perceived credibility. Often where sources were lacking, participants used their own judgements about the plausibility or feasibility of certain inclusions or scenarios. Written texts were often seen as the most trustworthy sources for reference, and games were seen as largely unreliable, often attributed to the necessity of games including entertaining mechanics for the player to interact with. Although some participants modded to increase the perceived accuracy of a game (that in turn increased their immersion) they too were aware of how the formal pressures of a game impacts how the historical content is included within it. Despite the Modders' focus on accuracy, often the necessity that games be entertaining outweighed these considerations, with entertainment viewed as more important component of historical games than issues of accuracy or authenticity.

Participants demonstrated the Cause and Consequence theme, particularly in terms of how the player's agency within a game is affected by the game structures, and how this maps directly with the interplay of the contemporary conditions on the actions of historical agents. Similarly, the ways that games enable counterfactual play was also a key component of participant's engagement, and also of their understanding that events in history are not inevitable. Participants paradoxically engaged in counterfactual narratives 'authentically' through their in-game decisions, where Modders and AArtists engaged in different *adaptive* and *productive* counterfactual activities, based on the apparent feasibility of their counterfactual scenarios.

Continuity and Change and the Ethical Dimension were considered together in this chapter, due to the frequent overlaps in the data between these guideposts. Participants used their conceptions of ancient Rome as a parallel to contemporary western societies, where elements of suffering also had overlaps with the Ethical Dimension. Players often made decisions that may have aligned with those made by historical agents, though they perceived them as immoral by contemporary standards. The chapter ended with the analysis of data pertaining to peripheral learning, outlining the self-reported elements that participants felt they could learn from historical games. These peripheral elements relating to both historical and the technical aspects of game play underpin deeper historical understanding, providing the foundations for historical learning, and historical learning activities, to occur.

The implications and discussion of these findings are given in the next chapter.

Chapter 6. Discussion.

The preceding chapter described the findings from the second study of this research, highlighting the particular guideposts that indicated the participants had achieved a deeper understanding of the historical thinking concepts. It also outlined the relationships and interdependencies between the different historical thinking concepts and across the concept guideposts. Furthermore, I defined the activities that led the participants to that understanding, where often participants engaged in different learning activities but came to the same conclusions despite the differences in their learning processes. With specific regard to the second study of this research, having specified these relationships in chapter five, this has allowed for these connections to be mapped (see fig. 7). This chapter will thus discuss the findings of the second study in conjunction with those of the first study, which generated preliminary findings about learning with historical media more broadly.

To do this, this chapter will first summarise how the research questions were answered, and give an overview of *what* people learn through engaging with historical games (RQ1) and *how* people learn through engaging with historical games (RQ2). As chapter five consistently highlighted, due to this interdependency of the 'what' and the 'how' - i.e. that there could be many learning activities that lead to the same element of historical understanding - it was more pragmatic to discuss the more detailed elements of these questions together (see 6.3 onwards). As such, the initial overviews in sections 6.1 and 6.2 will first address whether the learning was intended, i.e. whether it was incidental (directly from the games) or informal (through activities external to the games, see 2.3.1 and 4.1). Finally, in section 6.3 this chapter will delve deeply into the findings that warrant further scrutiny, and how they relate to previous literature.

These sections are organised by the themes of historical understanding used in the second study of this research, and serve to highlight the strengths and weaknesses of historical games for informal learning, in conjunction with other media. This chapter as a whole also demonstrates how this research has provided new insights into what, and how, players learn with historical

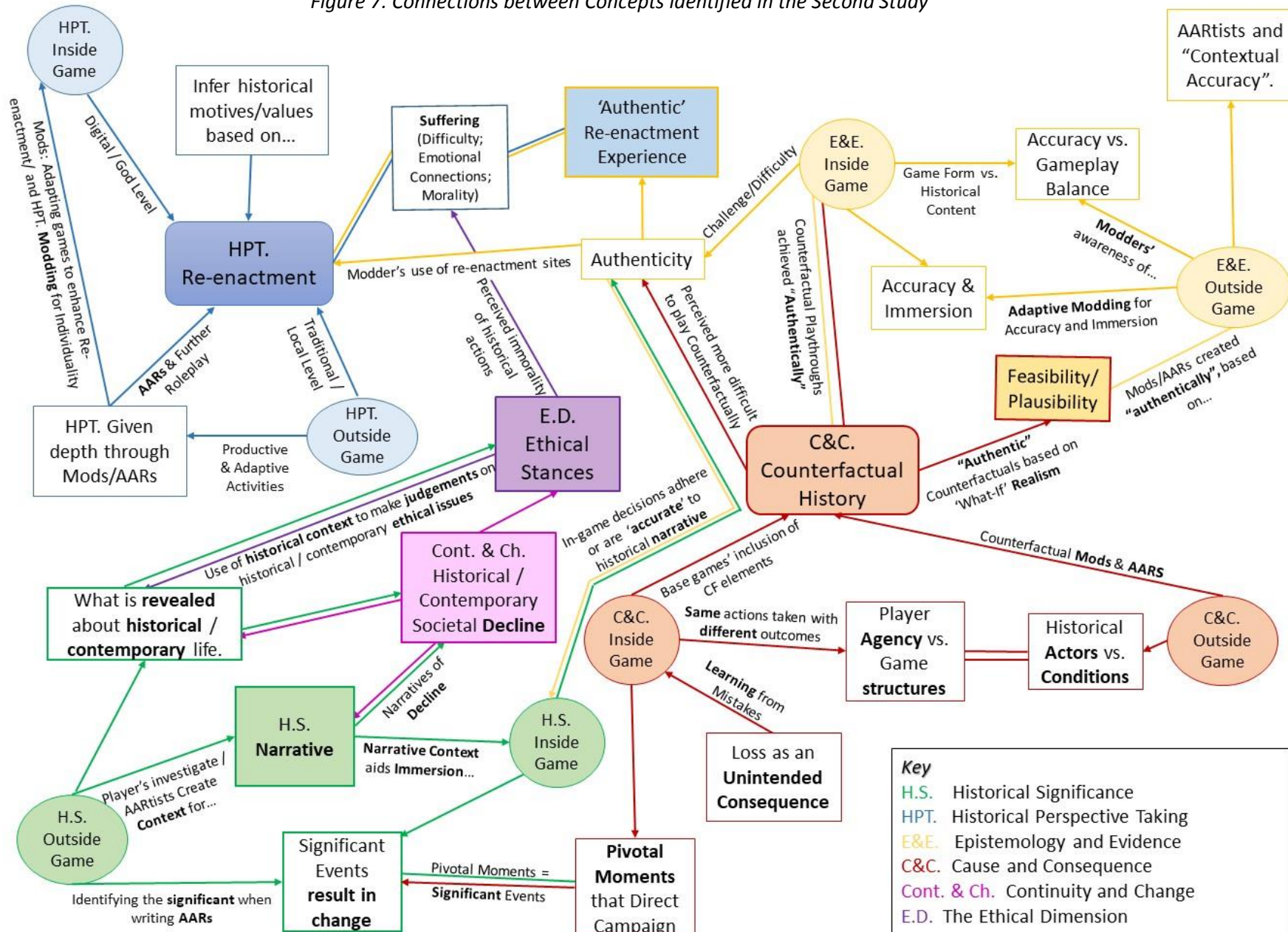
games, in reference to both the first and second studies. The chapter concludes by stating how engagement with historical games can potentially enable players to obtain a greater understanding of the historical, and contemporary, worlds.

6.1. What do people learn through engaging with historical games?

In chapter four, the survey respondents were asked whether they engaged with historical games (and historical drama, respectively) with the specific intention of learning about the past (see 4.1). Where respondents stated they were more likely to engage with historical drama with the specific intention of learning, with historical games these assertions were reversed. Players of historical games did not really engage with them with the intention to learn, in contrast with historical drama viewers. If we combine this finding with those of the second study, this would suggest that anything learned through playing historical games is thus a product of incidental learning. Although players did not play historical games with the intention to learn, they nonetheless obtained historical knowledge as a by-product of their gaming experience.

In reference to the self-reported opinions of the second study's participants, they cited the things they learned (or believed that historical games could teach) were largely superficial. This included the "facts" of the past, such as names, dates, weapons, armour and geography. If we also consider the findings of the first study, in relation to both historical drama and games, the respondents focused on the material culture of the past. Although in the first study material culture was highlighted as a means of identifying and assessing perceived (in)authenticity, there did appear to be tentative links between the perceived authenticity of a media form/text, and their viability as something that could, or should, be learned *from*. The fact that participants in the second study similarly highlighted material culture suggests that when players consider both the authenticity of historical games and what can be learned from them, that peripheral aspects like

Figure 7. Connections between Concepts identified in the Second Study



material culture spring most readily to mind. Part of this is undoubtedly due to the visibility of these elements in the games, and that they are more easily verifiable, though this claim is explored in more detail in 6.5.

When defining what can be learned with historical games, it is essential to note one distinction. In the second study, learning was identified to occur either due to direct engagement with a game itself (incidental learning), or via the learning activities occurring outside of the game, though in relation to it (informal learning). Of course, many instances of incidental learning with the games propelled informal learning activities outside of them - and vice versa – so this is less of a distinction and more of an interdependency. However, it is worth summarising where the deeper understanding of the historical concepts occurred: from the games themselves or from outside of them (fig. 7).

The previous chapter showed the types of historical understanding enabled through direct engagement with historical games: Historical Perspective Taking; Cause and Consequence, and Peripheral learning. Although, for example, not all the guideposts for the Cause and Consequence theme were demonstrated overall, the guideposts that *were* demonstrated were achieved profoundly, and considered particularly remarkable by the participants given the number of participants that frequently achieved to these guideposts. It appears then that where deeper understanding was facilitated by direct engagement with the games, that this was a particularly effective method of historical learning of those particular themes. This suggests that the real value of historical games for learning is in regard to the guideposts related to the Historical Perspective Taking and the Cause and Consequence themes, at least in terms of what can be learned via direct engagement with the games themselves.

In terms of the learning occurring outside of the games, though in relation to them (informal learning) some guideposts were achieved through both direct engagement with the games *and* external informal learning activities. Historical Significance was the predominant theme to fall into this category (fig. 7), as although narrative was a significant component of the participants'

experiences with the games, it was more through the informal learning activities outside of the games that led the participants to demonstrate those guideposts. For example, consumer participants would seek out the historical context for their gameplay, or AArtists would create their own narrative context. It was through these informal learning activities that facilitated their deeper understanding of the Historical Significance theme. The informal learning occurring through this desire for historical context also had implications for the Cause and Consequence guideposts. Although counterfactual narratives (and the guideposts associated with them) were achieved through direct engagement with the games, the informal learning that occurred prior to their game experience in relation to the 'actual' narrative of historical events allowed participants to knowingly play counterfactually. Again, the relationship between the different knowledge outcomes and whether they occur directly from the games or in relation to them becomes increasingly blurred, the implications of which are given in section 7.2.

For the Epistemology and Evidence theme, the participants in the second study demonstrated the guideposts, but this was achieved overwhelmingly in relation to the learning activities they engaged in outside of the games. In the first study, historical games were perceived to be less authentic than historical television and film. The participants in the second study made similar assertions regarding historical games' authenticity, providing additional evidence for this finding. Though in the second study more detail was given about participant's perceptions: they did not expect, and even assumed that historical games were not authentic, meaning they looked elsewhere for answers to their questions about authenticity. The sources that participants used were wide-ranging, and varied depending on the type of player (consumer/producer) and their previous historical education. For example, history consumers used texts that they had previously studied for verification purposes, whereas modders would use predominantly visual representations of the past from re-enactment sites that were more suitable for their modding needs.

Although references to the Continuity and Change and Ethical Dimension themes were scarce, those that the data did highlight were integral to answering the research questions in terms of

eliciting a greater understanding of both the ancient past, and its relationship with the present. The references to these themes were discussed in relation to direct engagement with games (such as *Fallout: New Vegas*) though it was actually the participant's prior understanding and former learning activities that allowed them to demonstrate those guideposts. In other words, while the games provided an interpretation of the past, it was the participant's previous (formal and informal) learning activities that allowed them to effectively evaluate that interpretation in accordance with their own understanding. As such, it was ultimately preceding learning activities outside of the games that facilitated their demonstration of these guideposts.

6.2. How do people learn through engaging with historical games?

As stated above, any learning occurring through engaging with the games themselves in the second study were instances of incidental learning, as the participants did not initially play the games with the specific intention of learning. The activities occurring outside of the games were thus instances of informal learning, as these activities were carried out with the intention of learning something about the past. What this means in respect to Conole's (2010) learning activity taxonomy is that the incidental learning occurring directly from the games was via *experiential* learning, whereas her other activities (*assimilative, communicative, information handling, productive, adaptive*) were examples of informal learning.

However, the nature of the relationships between these different learning activities was by no means clearly demarcated. In the previous section, I stated that the Historical Perspective Taking theme and certain guideposts of the Cause and Consequence and Historical Significance themes were obtained through direct engagement with the games. This means participant's demonstration of these guideposts were achieved through *experiential* learning. However, there were many surrounding informal learning activities that influenced this *experiential* learning. For example, AARTists engaged in *productive* activities to create a context for their gameplay experience, whereas other participants engaged in *information handling* and *assimilative* informal

learning activities to obtain this context (see fig. 7). Yet regardless of the type of learning activity a participant engaged in, they used these external activities to enhance their game experience. This was similarly true for the modding participants, that whilst working on a mod would also engage in *assimilative* and *communicative* activities that then influenced and affected their *adaptive* activity, that in turn affects player's *experiential* activity.

Overall, *assimilative* and *handling information* were the two most prevalent informal learning activities, and it was via these methods that much of the deeper historical understanding occurred (or was demonstrated). All the participants used written texts as a source of historical information, often considering them to be more reliable (see 5.3.1). This elevation of the written text as trustworthy is reminiscent of the findings of the first study, where historical drama was perceived as more authentic if it was a faithful adaptation of a written source (see 4.4.2). Although the games under discussion in the second study were not direct adaptations of historical novels or texts, nonetheless it appears that the elevation of written texts as more reliable as sources about the past is a consistent belief amongst both audiences and players, evident regardless of the (digital) medium of the historical representation. This will be expanded more in 6.5.

A particularly significant aspect to the informal learning activities with historical games were the medium-specific sources the participants used for obtaining historical information (see 5.3.1) The most pertinent source to fall into this category was LetsPlay videos, that in many ways (for a viewer) constitutes an *assimilative* activity. However, there is also the scope for players to interact with the LetsPlay producer by leaving them comments and critiques. As such, engaging with LetsPlay videos is both an *assimilative* and *communicative* activity for the viewer, or an *experiential*, *productive*, and *communicative* activity for the LetsPlay video creator. Once again, the subjectivity of perceptions, and the blending of different learning activities and types of learning (incidental, informal, formal) was found consistently throughout these research, the significance of which is given in 7.3.

Many other instances of informal learning via *communicative* activities was in reference to the participant's forum interactions, and only occasionally through communications with specific individuals (either face to face, or by distance). However, it is important to note that these interactions were trusted, as if a question was asked by a participant in a forum, it was perceived that the response could reliably be believed. Although the contexts are slightly different, Rosenzweig and Thelen (1998) found that communications with e.g. family members or known individuals were considered to be extremely trustworthy historical sources, more than text books and second only to museums. (Rosenzweig & Thelen, 1998, p. 235). Part of this in reference to Rosenzweig and Thelen's findings was due to the focus on family and local history, but also because the events that were being discussed were still within living memory. Although this wasn't the case with the participants in the second study (as the period of history discussed was not within living memory, nor were those conversed with family members) the fact remains that these discussions were considered reliable sources – and often more so than written texts. The findings of this thesis, in conjunction with that of Rosenzweig and Thelen (1998), appears to indicate that these types of communicative interactions about history or historical content have a perceived validity similar to the elevation of the written word previously discussed. Although this would need future research to establish with more certainty, both these sets of similar findings would appear to show that these communications are an important aspect of how individuals socially construct historical understanding, and legitimises the use of social constructivism as the learning theory used in this thesis.

The preceding sub-sections provided an overview of the answers to the research questions for this project. The following sections will therefore expand upon the assertions made here and previously in chapters four and five, to allow a greater depth of exploration of these findings, and how they align with, or diverge from previous literature. This allows for the more far-ranging implications of this research to be explored in reference to both research questions.

6.3. The Significance in, and of, Narrative

6.3.1. Narrative and Learning

Narratives were at the forefront of the participant's engagements with digital games, in terms of the history upon which the games are based, through the narratives they constructed through play, and through their play-related activities. This may seem unsurprising given that a ludonarrative media (games) are drawing inspiration from a different narrative form (history). However, the focus upon narratives in conceptual simulations was significant given the open, player-led narrative structures in these games. Often, little context is given to the player why a particular battle, event or historical figure was significant, meaning participants initially saw the events within the games as disjointed parts. However, we saw in 5.1 that where the games may not have included much *framing narrative* (Chapman, 2016) beyond the obvious historical setting, the participants desired to increase the narrative through acquiring the historical context. By obtaining this contextual information, players created meaning out of these disjointed parts, which according to Dettori and Paiva (2009) promotes a meaningful process of construction, sense-making, and is consequently a valuable cognitive tool.

Participants thus took on the role of historical researchers, learning more about the games' historical context through *assimilative* activities, creating a narrative that underpinned their *experiential* playing. Narratives promote learning and meaning-making processes through their link with the prior experiences of the learner: by creating a narrative we try to discern its internal logic to figure out how it relates to what we already know (Clark & Rossiter, 2008). For the participants in this research, the narrative context they gained through information seeking allowed them to relate this contextual information to what was already known to them through previous learning, in conjunction with the limited game-information provided. They employed the historical narrative as a motivation or cause for their actions or the events in the game, which demonstrates an individual has achieved a cognitive mastery of the historical narrative (Wertsch, 2000).

This thesis provides further evidence that historical games, like games more broadly, can inspire an interest that motivates a player to learn in a way that moves beyond the game experience, as has been found elsewhere (I. Iacovides, Aczel, Scanlon, & Woods, 2013). In addition, the findings of the first study regarding media and game tourism (see 4.2.2.1) have demonstrated that these activities transcend the geographical locales of players, influencing the informal learning activities taking place both within the home, and outside of it.

Through participants' desires to learn about the historical context behind the setting of the games in my research, clearly this is a key factor that motivated their various informal learning activities (see fig. 7). As such, this provides an empirical basis that confirms theoretical works that states popular culture representations can stimulate interest in the classical world (McDonald, 2008) and function as a springboard to further historical learning. This narrative context allowed participants to feel a greater emotional connection to the game's events and characters, where this greater emotional connection in turn allowed reflections on the content and facilitated informal learning activities. This finding aligns with previous research on the importance of narrative and emotional connection for learning (Paulus, Horvitz, & Shi, 2006; Wolfe, 2006) though with particular reference to historical learning.

Where some participants investigated the historical context behind their game campaigns, we saw in 5.1.3 that AArtists created *their own* contextual background for the events of a game through writing AARs. This meant they used their own experiences to create a narrative that was more personally meaningful to them (Sim & Mitchell, 2017). Of course, this means that the AArtists were not learning of the 'actual' historical narrative, but nonetheless still demonstrated historical thinking skills as outlined in Seixas and Morton's (2013) framework relating to historical significance, especially GP1 (significance through showing events resulted in change) and GP4 (significance is constructed through narrative). In this respect, their *productive* activity of writing the AARs meant they had to critically approach these elements within their gameplay, allowing them to demonstrate these guideposts.

If we consider other types of learning moving beyond the strictly historical, many AArtists suggested they improved their writing skills (5.5.4). This aligns with previous research into similar activities, especially fanfiction. According to Aylett, “[t]he active engagement with story required by authoring is clearly very much in tune with a constructivist approach to learning” (Aylett, 2005, p. 5) and previous research has shown how the act of writing fanfiction can aid English language learning and writing (Black, 2008). Research has also been carried out into fanfiction written about games (Gerber & Price, 2013), and the relationships between fanfiction, games and learning (Macfarlane, 2007), though the focus is still upon the pedagogical benefits of fanfiction in terms of textual analysis, language learning and creative writing. The findings relating to the AArtists in this research aligns with the previous research in relation to fanfiction, in that they perceived that they became better as writers. However, as far as is known, my research is one of the first to empirically investigate AARs written about historical games and the AArtists who write them, in terms of the types of historical skills developed through the course of this *productive* activity.

For both the consumer group and the AArtists, they obtained a narrative context for their game experiences in different ways, but their motivations for seeking this context were the same: many of the participants felt that increasing the narrative context made their play experiences more immersive, a claim I now explore in more detail.

6.3.2. Narrative and Immersion

The nature of immersion has important implications for the findings of my research, and for informal learning. As stated in 2.5.2, a person can become immersed in any narrative, or narrative media, in multiple ways. With specific reference to the second study, it appeared to be the participant’s empathic attachments to non-player characters (NPCs) that were the most crucial for facilitating immersion, or what Ryan (2001) termed ‘emotional immersion’.

That participants had such emotional connections to the NPCs within their games was evident within the data, especially in terms of Historical Perspective Taking (5.2.3.1). As an example, Leonard the Great kept a log (outside of the game) following the characters within a particular family throughout his campaign, which increased his emotional investment in these characters, and thus his immersion within the game. Conversely, Gareth found that the immersive properties of games meant he became more emotionally invested in the game's characters (see fig 7).

These opposing perspectives on the causation of emotional attachment to NPCs with the immersion of games highlights the complexity of these relationships. From one perspective, the emotional investment causes (or adds to) the immersive properties of the game. From the other, games already have immersive properties that cause players to become emotionally invested in the characters. This appears to suggest that there is no clear relationship between emotional investment in characters and the immersion in a game, and that the direction of these relationships are subjective depending on the player.

This diverges from previous literature (Bjørner et al., 2016) that sees immersion as partly created by the emotional connection to the game's characters, as for some of the participants in the second study, a sense of immersion within the game was essential first before they could feel this emotional connection. Of course, some of the immersion within a game is created through the narrative influences of the story, through framing, contextual, or AAR narratives. In light of the findings of the second study, given historical game's focus on historical environments, and the mystery created through the uncertainty of outcome, that perhaps *temporal* and *spatial* immersion (Ryan, 2001) may be more important prerequisites to immersion than the emotional components. Or, that emotional immersion is just one strand of narrative immersion that in conjunction with the temporal, spatial, and ludic, that a combination of these elements is required for a player to feel immersed in a game.

Players desired to obtain a narrative context of the game to make it more immersive, and also so they felt more connected to characters within the game. However, we also saw that modders

aimed to increase the accuracy of the base games – a primary goal of the modding participants – to increase their immersion. What is especially significant is *how* they were modding the base games to increase their immersive properties, namely modding to increase the NPCs individuality (5.2.5). Sebidee wished to ensure that the represented units of the game appeared as different individuals. For him, this more accurately reflected how the units would have appeared historically. This focus on individualising the units increased his perception of the emotional immersion in the game, as he felt it allows players to see units as anthropomorphic, opposed to merely pixels on a screen.

Modding for individuality was perceived to increase the accuracy of the game, and thus the player's immersion in it. What this meant is that players were better able to become immersed in their specific character role of a general, effectively re-enacting the (perceived) actions of historical agents through replicating them within their game experiences. This sense of re-enactment allowed players to better demonstrate the HPT guideposts through these different forms of narrative and ludic immersion: through their sense of presence in the gameworld (spatial immersion); their investment in the characters (emotional immersion); the mystery of what would occur next in their campaign (temporal immersion); and also the ludic immersion through the act of playing.

Through this immersive engagement, participants were better able to reflect upon the differing motivations and perspectives of historical agents, in light of the historical context. However, they achieved this understanding through different learning activities that moved far beyond the games. Firstly, as stated, they obtained the context about the setting of the game through *finding information, assimilative, and productive activities*. Secondly, through their *adaptive* activities, modders increased the emotional immersion by modding for individuality, in order to create a more authentic re-enactment experience. They similarly engaged in *finding information* and *assimilative* activities when creating their mods, often using resources from traditional re-enactment books and websites. All these combined activities that occurred outside of the game afforded the participants to have a more authentic re-enactment experience inside the game,

which allowed them to gain an *experiential* approximation of the motivations and perceptions of historical agents, and to better engage in Historical Perspective Taking.

6.4. Games and Re-enactment: Authenticity, Challenge and Suffering

Historical games affording a type of historical re-enactment has long been discussed from theoretical perspectives. According to Chapman, who writes specifically about historical games as a form of re-enactment, “we still seek to learn about the past by exposing ourselves to some of the same perceptual information as those in the past experienced in their environment. However, we also commonly take re-enactment to mean something that goes beyond this observation and into some kind of active practice” (Chapman, 2016, p. 180). This means that games constitute a form of re-enactment that engagements with other digital media are less able to provide, in that they more easily facilitate an (inter)active practice.

The findings here have provided confirmatory data that players, explicitly and implicitly, see their historical game engagements as a form of historical re-enactment, providing some much-needed empirical foundations to the theoretical assertions scholars have made in reference to historical games (see 2.8.3). However, the participants in the second study maintained an awareness that these re-enactment experiences only approximated historical agent’s experiences (see 5.2.1). Although this allowed them to get some sense of how it may have been for the people in the past, they questioned the extent to which a fuller experience was actually possible. It was this scepticism that meant the participants fulfilled the guideposts for HPT, recognising the limitations of their experience with the games and exercising caution about their inferences.

The findings of the second study also refute some scholarship. Discussing the commander’s role within strategy games, Jørgensen asserted “[t]here is no continuous, real-time, emotional relationship between player and units,” (Jørgensen, 2009, p. 5) in games that have the god-level viewpoint that conceptual simulations most commonly adopt. However, the data collected in my research has found that this is not the case, despite the players’ distanced perspective from the

gameworld in conceptual simulations. Not only did the participants express their emotional connection to units and characters, this component of their experience was so fundamental to their enjoyment and immersion that they sought to increase it in different ways.

Additionally, according to Rejack “[t]he emotional identification with the characters (if there is any) happens—as it does in cinema—by witnessing, not by interacting” (2007, p. 420). In realist simulation games where cut-scenes are a key component of how the player engages with the narrative, this may well be a fair assertion to make. Yet, in the conceptual simulations studied in this research, there are very few (if any) cut-scenes or cinematic conventions that allow the player to merely witness events: they must interact with the game before an event can occur. As such, while players can witness the consequences of their choices upon NPCs, their emotional connection to the characters defines what decisions they *choose to make*. These characters are not merely pixelated clones, but are figures that the participants have become emotionally invested in, meaning that the emotional connection to the characters, contrary to Rejack’s position, has been shown to occur through both witnessing *and* interacting.

The experience of digital re-enactment allows a player to both witness the historical world and the impact of their decisions on the NPCs, as well as interact with the historical world. The narrative and ludic influences on the player’s immersion and the authenticity of their re-enactment experience has been outlined. However, players also stated that ideas of authenticity and suffering contributed to an authentic re-enactment experience, which warrants further discussion. In particular, the suffering engendered through the challenge of the game.

With both traditional and digital re-enactment, the discourses surrounding the nature of authenticity and suffering appear to be similar. A traditional re-enactor wishes to “gain the physical experience of authenticity. Here, physical pain is proof of an authentic experience ... it reminds re-enactors how hard it was ‘back then’,” (Gapps, 2009, p. 400). Of course, a player of historical games cannot experience the physical pain of sleeping on a rocky ground or from marching for hours, for example. But they can experience emotional pain in the ways that the

data in this research has outlined, and this element of suffering was similarly linked to a more authentic re-enactment experience. Indeed, traditional re-enactment is a form of affective history that has emotional affect as its goal (Agnew, 2007), where “[s]uffering features largely in this medium” (Agnew, 2004, p. 330). Some of the participants demonstrated that they suffered in these ways through their engagements with historical games, speaking in the same terms as Darren, who also takes part in traditional re-enactment practices (5.2.3).

This indicates that emotional suffering is a component of both traditional and digital re-enactment, even though the suffering is created in differing (physical/psychological) ways. Furthermore, in relation to the finding that players can suffer due to the perceived immorality of some of their actions within the game world, this allowed players to further their “historical understanding by acknowledging the essential otherness of historical agents” (Agnew, 2004, p. 329). The players were not re-enacting their own contemporary perspectives, but were making choices that appeared to reflect the perceived actions of historical agents, despite the emotional suffering that this seemed to cause.

In respect to theoretical works addressing the digital re-enactment through the discourse of suffering, it is “imbued with the sense that the more difficult a game is, the more it makes its players suffer, the more authentic the historical experience is” (Chapman, 2016, p. 219). The second study provided empirical evidence that players also see this connection between authenticity and suffering, and similarly perceive this creates a more authentic re-enactment experience. Although Chapman talks about the nature of suffering only in terms of challenge, the findings outlined in 5.2.3 have also contributed to knowledge by extending this idea, in that emotional connection to NPCs and the perceived (im)morality of a player’s in-game choices are also ways that historical game players suffer, which in turn increased their perceptions of an authentic re-enactment experience.

This overlap between suffering and authenticity in games and traditional re-enactment reiterates the findings from the first study of this research relating to the negativity bias occurring with

historical TV and film (see 4.4.2; and Beavers & Warnecke, forthcoming 2020). Prior research into film and television has found that negative affect predicated learning, leading to “higher levels of issue interest and knowledge” (LaMarre & Landreville, 2009, p. 547). Furthermore, stories arousing negative affect increased viewer attention to the content, their ability to recall the story, and increased their cognitive ability to process the story (Lang, Newhagen, & Reeves, 1996, p. 460). Forgas (2007) similarly found that negative mood was more likely to induce a greater degree of attitude change.

It appears that games are able to induce a negativity bias in players in similar ways to TV and film, given that the participants in this research were more likely to recall negative emotional experiences with the games, or at least find them more remarkable. While this finding in regards to games was as not as prevalent in the first study, it was found to be much more significant in the second. This shows that the second study successfully built upon the findings of the first, giving more depth and increasing the empirical evidence for this finding. Although negative affect and its relationship with the perceived authenticity of the game does not necessarily presuppose learning, it does indicate that these elements increase the *perception* of learning, and therefore is a factor we must consider when assessing what and how people can learn through these games.

6.4.1. Challenge and Learning

These games also elicited other means of suffering. Suffering through challenge resulted in the participants feeling that their play experience was more authentic and thus more immersive. The overlap between challenge and immersion appears to be in alignment with previous research into the relationships between challenge and learning. Hamari et al. (2016) states that students solving more complex problems allows them to see more connections, be more interested and thus pay better attention. They also found that challenge had a direct effect on learning, stating it was “essential for learning” (Hamari et al., 2016, p. 171). However, the games used in Hamari’s study were “serious games”, i.e. experiential simulations designed to be educational, and it was carried

out within formal educational contexts (e.g. school/university). This was not the case with my participants, as they were adults within informal settings, though it appears that there may be some link between challenge and learning with historical games, even if the context and the nature of the activity (formal vs. informal) is different.

The challenge of the games (and associated suffering) led to an increase in the immersion of the game, though this was in terms of the ludic immersion as opposed to the narrative components already discussed. However, previous research has found that the level of challenge had no effect on immersion, and although a game increased learner's engagements initially, this effect eventually tapered off (Ronimus, Kujala, Tolvanen, & Lyytinen, 2014). This implies there was a novelty value in using the games, which diminished the learning gains when they were repeatedly played over time, something that was echoed by participants in this research (see 5.5.3.2).

Because these participants had played these games over such a long period prior to the beginning of the study, what they were able to learn on a day to day basis was consequently diminished.

Although this did not necessarily affect their engagement in the games, they did however begin to use mods to make their play experiences 'fresh' again.

The modding cohort, and indeed some of the consumer participants, perceived that the base games were developed to be easier for a casual player to play. This apparent simplification of the base games was seen to make the games less authentic, as they were perceived as less challenging. The modders therefore also adapted the tactical possibilities (the mechanics) of the games, often making them more complex, and the game itself more challenging. This resulted in the players who use these mods believing that they were more realistic because of the increased challenge.

There are multiple cyclical relationships here at the conceptual level as well as the physical/technical levels of the players. At the conceptual level, the suffering caused to the participants through the challenge of the games made them perceive that the historical representation of the game and their experience of playing it was more authentic, and more

immersive. On a practical level, modders saw that the games were inauthentic in part because of the simplification of the mechanics, so through *adapting* the game through mods (and their associated learning activities) they felt they increased the authenticity of the game, and consequently its immersion. This was an idea confirmed by the *experiential* activity of playing by the consumer groups that used these mods – they engaged with the more difficult game versions the modders had created, and found these experiences more authentic, and more immersive, precisely because of the increased challenge and suffering.

That these ideas of challenge, suffering and immersion are linked with the apparent authenticity of the experience is surprising given the participants comments on 5.3.2.1, ideas that will be discussed further shortly. Through this challenge, this lends the experience a legitimacy which may mean players are more likely to value what is learned from them as correct and worthwhile, a finding that also aligns with previous research into adult learning with games (Whitton, 2011) about the perceived trust in the game environment and how this affects the perceptions of the value of what is being learned. This element of suffering and challenge may not necessarily increase learning outcomes, but again appears to increase the *perception of learning* amongst the research participants.

Clearly, the nature of immersion in these games is an important aspect of the participants' engagements with them (see fig. 7), linking directly with Seixas and Morton's (2013) historical understanding framework in terms of Historical Perspective Taking, Epistemology and Evidence, and the Cause and Consequence themes. However, very little has been said thus far about how, and whether, this immersion actually affects learning.

6.4.2. Learning and Immersion

The challenge of the games and the consequent perceptions of authenticity/suffering this challenge elicited in participants appears to be an important factor when considering learning through historical games. However, despite that immersion is cited as a desired state of engaging

with narrative media (Green et al., 2004) this does not necessarily mean that this goal state is good for learning: immersion appears to be more linked to a player's enjoyment of the game. In this thesis, the extent player's suffered through their engagement helped them achieve the HPT guideposts, facilitated by their immersion in the game. More commonly however, immersion was linked with how much the participant's enjoyed or felt engaged in their play experience.

Previous research has correlated positive affect (i.e. enjoyment) with increased learning in game-based learning environments (Sabourin & Lester, 2014). However, the findings of the second study in this research have shown that negative affect (i.e. suffering) was also correlated with learning in reference to historical games. This indicates that both positive and negative affect have different implications for learning depending on the nature of what is being learned; with history (and historical games) learning seems to occur in relation to both valences of emotional affect.

A sense of engagement with these games may have created an environment that while enabling potential learning, may not be a direct predictor of it. Being engaged in a game and wishing to remain so and play longer may mean there is more potential for learning opportunities because of the increased amount of time spent in this activity. Also, the second study findings demonstrated that through the desire for immersion, these games aided learning in other ways. Through the course of pursuing immersion they may have learned incidentally as a side-product, and also because higher levels of engagement can increase interest and learning (Green et al., 2004). The desire for immersion motivated external learning activities, whereas immersion itself was most closely correlated with authentic re-enactment experiences of the past and Historical Perspective Taking.

The identification of this cyclical relationship between immersion and learning (i.e. the desire for immersion motivates external learning activities, while immersion in a game can itself facilitate learning of e.g. HPT, as given in fig. 7) is a novel finding relating to informal learning with historical games. Although the literature appears to show no significant, direct link between the level of

immersion and learning outcomes, in my research, the participant's immersion in the game was central to their re-enactment experience. This may suggest an indirect relationship between immersion and learning. Therefore, while immersion in historical games may not directly predicate historical learning, nonetheless it appears immersion can enable and/or motivate a player to learn.

6.5. Historical Games and Inauthenticity: Participant biases and the Tensions within the Game form.

In the findings of the first study given in chapter four, although no media form was seen as definitively authentic, historical games were perceived by respondents as less authentic than historical film, which in turn was seen as less authentic than historical TV. It was also outlined that games were seen as less authentic than other media due to their inclusion of mechanics and that these must be enjoyable to interact with, and how these related to the fiscal motivations of game developers (4.4.3). The participants in the second study were similarly sceptical of historical games' authenticity, also citing the perceived constraints of the game form (e.g. the necessary inclusion of entertaining mechanics) as contributing to this perception. However, their perception that historical games are inauthentic implies that they do not see the games as a reliable source for learning about the past, indicated by their propensity to seek information outside of the games from other, perceivably more reliable, and predominantly textual, sources. Participants' perceptions of the fundamental unreliability of historical games seemed to be a barrier to learning, or at least in the participant's confidence in games as a viable source for learning *from*.

However, this only seems to apply to their perceptions of deeper historical understanding. In the Peripheral Historical Learning section (5.5.3), the participants asserted the types of things they had learned directly from games was fairly superficial, as they presupposed the content in the games was probably incorrect or untrue. This echoed the findings of the first study where respondents tended to focus on material culture when evaluating representations of the past. In

addition, previous research confirms that the perceived value of a game for learning can be based upon whether the player believes the content is worthwhile (Whitton, 2011). The participant's fundamental assumptions in both studies in this thesis reiterate that games are viewed as an inauthentic medium for historical learning, apparently aligning with Whitton's (2011) findings, as they were sceptical of how much could be learned from them.

Participants were perhaps more likely to cite instances of superficial historical learning because these aspects tend to be visual and immediate; questions on fairly simple historical aspects (such as "what sword did a Roman legionary use in 200CE?") are much more easily answered than those pertaining to more complex historical debates (like "why did the Roman Empire fall?"). It is interesting to note however that participants remained critical of the historical content in games, even when presented with perceivably historical 'facts', precisely because of the perceived inauthenticity of the game form. Part of this is clearly because of their own experiences with the games and their identification of aspects as inauthentic (due to their own prior historical understanding and perceived constraints of the form outlined in 5.3.2) but could also be due to the culturally-informed framing of historical games as a form of entertainment.

The games participants played in this research were released as commercial entertainment rather than educational products, despite (arguably) having educational properties. This would further contribute to the participant's predisposition that the representations in games are unreliable as they were explicitly designed for entertainment rather than educational/historical purposes.

However, in historical games released since the data collection phase, such as *Assassin's Creed: Origins* – which features an educational "Discovery Tour" mode akin to a virtual museum – it appears that game developers are becoming more inclined to differentiate between the 'play' and 'learning' spheres in historical games, through explicitly changing the framing context from "entertaining game world" to "educational historical world". Although only one example, a fruitful avenue of further research would be to investigate how the framing of historical games as educational or entertaining respectively affects the extent of (perceived and) actual learning with historical games.

The fact participants critically approached the represented histories in games is a historical skill in its own right. In section 5.3.1, the participants demonstrated of the guideposts of Epistemology and Evidence in history, where the games were one of many sources used for corroboration, enquiry or inference. However, their perception of inauthenticity in media was not exclusive to games alone, where they were equally critical of other fictional media such as film and TV, and also of books, though to a lesser extent. We saw in 5.3 that perceived potential inauthenticity in a range of media was a discussion point, with different standards for authenticity applied depending on the form by which it was relayed. On the whole however, books, articles or written texts were perceived as the most (if not totally) reliable historical form, with participants believing (shown in 5.3.1) that historical games should conform to what is outlined in written texts, but not the reverse.

If we recall Rosenstone's words given in 4.4.2, it seems that the participants in both studies possessed "the notion that a truthful past can only be told in words on the page" (Rosenstone, 2006, p. 5). The written word is not only the predominant way that 'proper history' is relayed, but is also akin to more 'traditional' learning across all contexts, which are fundamentally based on assimilating written texts. The findings in this research confirm Rosenstone's assertion, showing that written texts were perceived as more reliable than film and television is also true of historical games. This highlights how written texts are elevated over other forms for historical learning and are perceived as more reliable, when compared with both historical games and other visual media more broadly.

Hence, much of the historical understanding the participants gained was through learning activities outside of the games but in relation to them, where the games were a starting off point for further research. Although the participants' predominant motivation for engaging in these learning activities was not necessarily to check the authenticity of the representation, the fact remains that the games themselves were a central point of reference that propelled the participants to engage in this information-seeking behaviour, which in turn aiding their deeper historical understanding. This research has shown that popular representations do motivate

players' learning activities in relation to the historical content, though often initiating an interest in a historical period or event and the learning this results in are cited as the main value of popular historical representations (Toplin, 2007). While undoubtedly important for the participant's learning in these studies, this was not the only value of historical games for learning about the past, as my research has demonstrated.

6.5.1. Tensions of Form and Content

Participants in both studies were aware of the tensions inherent to representing history in any form, and had differing expectations for authenticity. These perceived tensions also aligned with previous research that also found evidence of these tensions amongst various stakeholders (Coppstone, 2016). In this thesis, this was especially true with historical games, where the interactivity of the form in combination with the participant's fundamental perceptions that games tended to be an inauthentic medium in meant they had very different ways of judging games' authenticity. Even between different participants in the second study, there were varying assessments of the authenticity of historical games, and also different stances on historical authenticity's perceived importance.

In 5.3.2.1, the producer participants, Sebidee and Redslayer stressed how important historical accuracy was to their play experience, with them citing that the more accurate it was, the more they became immersed in the game (and conversely, the less accurate they perceived the games, the less enjoyable they found them to play). However, other participants had directly contrasting positions: many consumer participants stated that accuracy was not really important to their enjoyment of the games (even those with a historical background) and furthermore that if a game was too accurate, it could actually decrease their immersion. These opposing perspectives have multiple implications that will be addressed in turn, as they all hinge on the tensions between historical content and media form.

Firstly, modders stated accuracy in games was important to their play experience, therefore they are more likely to notice perceived discrepancies. This is unlike the consumer groups, who did not see inaccuracy as a factor that would affect their enjoyment. This serves to highlight the inherent subjectivity of these play experiences in terms of the participant's differing motivations, but also of their perceptions of the games as a historical source, and as a source for learning about the past. This subjectivity seems to suggest that for many players, the tension between accuracy and immersion exists on a continuum, which would seem to be true in light of Alwyn's assertions that he prefers a balance between gameplay and authenticity (5.3.2.2). Players for whom accuracy is important to immersion would exist on one end of the continuum, while those for whom it is more irrelevant would consequently sit on the other.

Secondly, despite the importance modders placed on games to be historically accurate, they were also aware of the tension between game form and historical content, exemplified by Sebidee in 5.3.2.2. Sebidee outlined the things he felt were essential for games to be authentic (such as units have to act as they did historically) but that he made necessary adjustments for gameplay reasons (like having battles that last ten minutes instead of several hours). Despite his personal motivation to make the games more accurate, he was nonetheless aware of how the game *form* must affect the historical content, and adapted his mod content accordingly even if they became less historically accurate as a result.

This suggests regardless of the importance an individual places on a historical game's authenticity, the demands of the game form will often trump the historical content for many players – even those for whom accuracy is important. It seems that for these participants at least, it is better for historical games to be good games rather than good histories, as it is perceived to be difficult (if not impossible) for them to be both. Furthermore, this reiterates the idea outlined previously that when players make judgements about authenticity, they do so in light of the game form by which the historical content is relayed, making the form a factor in how they judge the authenticity of games.

Finally, the tension between accuracy and immersion is merely one of the tensions between game form and historical content that this research highlighted. If we consider the tension between form and content to be an umbrella term that encompasses form-specific elements (entertainment, immersion, gameplay) as well as content-specific elements (accuracy/authenticity, narrative, 'history'), participants demonstrated their understanding of these tensions in different ways and giving different reasoning for their assertions.

For example, in both the first (4.4.3) and second (5.3.2.2) studies, participants highlighted form-specific aspects such as the game mechanics and the necessity of games being replayable as factors contributing to games' inauthenticity. These elements were considered inauthentic precisely because they made the games more entertaining to play, where this need for entertainment or fun was considered to be at odds with concepts of historical accuracy, or even that notions of 'fun' are in some way oppositional to learning. This was a deeply-held belief of the participants, and one that if similarly viewed in light of the findings of the first study in relation to TV and film (4.4.1) is by no means exclusive to historical games.

That the participants in both studies held this perception is an important finding, as it implies the more entertaining a game (or film/TV show), the less accurate it is perceived to be, and thus any content may be disregarded in terms of learning. Again, although the tension between form and content may not actually impact the extent of learning, it certainly appears to affect *perceptions of learning* to an extent that may bias players, causing them to reject the games as tools for learning about the past. Yet, the perceived inauthenticity of games and the potential bias against them as learning tools prompted participants to engage in different learning activities external to the games. These activities were seen to be more reliable, even if they only occurred in relation to inauthenticity when the representation was considered to be illogical or bizarre (5.3.1.1). This indicates that participants approached the games critically as historical sources, in relation to other visual and textual media.

In 5.3.1.2, non-history consumers read ancient sources (Procopius and Xenophon respectively). It is interesting that only non-history participants used primary sources during the data collection phase, though this is explainable in that the participants with a background in history may have already previously encountered these (or similar) primary sources. Furthermore, with producer groups, especially modders who predominantly used visual sources for reference such as re-enactment and replica websites, perhaps ancient sources were less useful for their *adaptive* purposes. Ancient sources do not include drawings or visual representations of historical content, so even though they may include detailed textual descriptions, it takes a lot more work on the modders' part to implement a textual description into a visual design, than it does to simply replicate an existing image within a game. This is not to say that the history consumers or producers do not use ancient sources, only that they were not remarked upon during the course of the interviews and were not a predominant feature of their engagement.

Where Philip used Xenophon as an ancient source to corroborate the representation of ancient Greece within *Hegemony Gold* (2011), Pete wished to read Procopius' *Secret History* (2007) to expand upon what he saw in the game and get a different interpretation of it. Although differently motivated to read ancient texts, both participants evaluated the games and written texts on the basis of their perceived relative authenticity and made judgements about the validity of their own, and the sources', interpretations. Their corroboration of different sources and their degrees of uncertainty about their inferences are important historical skills. The fact that they questioned their own understandings further highlights the subjectivity of historical interpretation, in that even in conjunction with a variety of different sources (games, books etc.) there can still be multiple, sometimes opposing, understandings of a particular historical figure, event or period.

It is precisely this subjectivity and the competing interpretations of history in relation to accuracy/authenticity that enabled discussions about the historical content in games and in other media. For example, in 5.3.1.5 Symon cited Legend of Total War's (LoTW) LetsPlay videos as one source of his historical learning. However, LoTW also stated he might intentionally say something

inaccurate precisely to provoke a debate amongst his viewers. Of course, communicative activities are at the heart of LoTW's purpose in creating LetsPlays, both in terms of him releasing them online for others to see, and also in terms of viewer's comments on his videos, and are a way of maintaining subscriber's interest in his channel. Though communicative learning activities relating to the authenticity of games' representations were mentioned by all the participants in this research, exemplified by the data in 5.3.1.4. In particular, Aaron and Leon used game forums to initiate discussions with other players regarding the authenticity of games' historical representations. This has two implications. Firstly, it highlights how essential technologies such as the Internet are in enabling and facilitating social/communicative learning, especially for those who may not have opportunities to have these types of discussions face-to-face.

Secondly, the fact that all the participants (to greater or lesser extents) engaged in discussions relating to perceived authenticity indicates this is an important way in which players obtain, or add to their understanding of history. What is particularly significant is how this understanding was instigated, in that participants were exposed to a range of different perspectives, interpretations and arguments throughout their discussions with other players. The multiplicity of (sometimes conflicting) perspectives on historical evidence in reference to a portrayal in a game indicates the subjectivity of players' experiences, simultaneously highlighting the participant's implicit awareness that there is no single historical truth, only different interpretations that they must evaluate on the basis of their perceived validity and plausibility.

This awareness of multiple perspectives allowed participants to see that game developers were similarly representing their interpretation of the past within the games, where they took into account the developer's perceived motivations: in essence, to make a fun, commercially viable game. Their awareness of the developer's role in representing history in addition to their debates with others reinforced that history in all its forms is merely a construction. If, as this research has suggested, even the nature of what was actually historically accurate is open to debate, this implies the participants see history itself as constituted of a range of competing discourses and interpretations, an understanding achieved not directly from the games, but indirectly in

reference to them. Therefore, where perceived inaccuracy within a game may mean players will not learn directly from it, it does act again as a springboard to a range of other historical learning activities that do appear to increase their historical understanding.

Returning to the ideas of evaluating the plausibility of differing historical interpretations, feasibility or logical extensions of history were at the forefront of Epistemology and Evidence theme (5.3.2). Modders particularly had to draw upon what was perceivably historically plausible or typical when trying to make more accurate mods for historical games, given they felt there often were inadequate sources for their purpose. This means both consumer and modder players evaluated the feasibility of various interpretations of history, though the latter took this process one step further by implementing their interpretations into a mod.

The process of defining logical/plausible interpretations of history was identical with both modders and consumers even with regard to playing counterfactually (see 5.4.5.1). Where speculation and inference seem to be at the heart of assessing perceived authenticity, it is similarly at the heart of engagement with counterfactuals (see fig. 7). This indicates how an understanding of one theme of historical understanding (Epistemology and Evidence) can produce transferrable skills that can be applied to another theme (e.g. Cause and Consequence) that in turn can enable a deeper understanding of that theme, and is also true across all the 6 themes of historical understanding. This is a finding in its own right, as it demonstrates that historical understanding is not necessarily gained through a linear route, and instead emerges through an interrelation of different skills, media and types of historical understanding, that affect and cross reference each other. The historical thinking concepts may enable learning in isolation from each other, but their strength seems to lie in the intersections between the themes and guideposts, and in conjunction with the range of learning activities that the participants engaged in. Historical games are merely one strand of engagement in a much larger web of learning activities that can produce historical understanding.

6.6. Cause, Consequence, and Counterfactual Histories

For the Cause and Consequence theme, three guideposts were discussed. These were the interplay between historical actors and contemporary conditions (GP3), differentiating between intended and unintended consequences (GP4) and the demonstration that history was not inevitable (GP5). However, GPs 1 and 2 relating to multiple short- and long-term causes and consequences (GP1) and ranking them according to their influence (GP2) were not really evidenced. The implications of GPs 1 & 2 not significantly figuring in the data are discussed in 7.4, along with an evaluation of the frameworks as they were used in this thesis. As such, GPs 3,4, and 5 are the focus here.

For GP3, the understanding of the interplay between historical actors and contemporary conditions, it was apparent that all the participants were able to demonstrate this GP, given the alignment with how a player's agency maps onto, and is in tension with, the game structures. The choices afforded to the player within the game directly parallel the agency of historical actors, where the game structures represent the contemporary conditions, such as economic, military, social, cultural aspects etc. Like the historical actors who were constrained by the contemporary historical conditions in terms of what options were available to them, so is the player's agency constrained by the rules and mechanics of the game. It is precisely these tensions programmed into the games that allowed the participants to demonstrate this GP, which appears to be a particularly form-specific strength of the medium in terms of eliciting historical understanding. This is not to say that an understanding of this kind is not available through other means, only that the models of historical processes built into these games and the extent of the players' agency to affect them is a particularly effective method in producing this type of historical understanding.

This assertion does come with caveats however. The complex strategy games that participants in this research played have, as mentioned, particularly open narrative structures. These narrative structures emphasise player agency and choice, which can result in a multitude of different

outcomes in the game world. In contrast, realist simulations tend to represent a single narrative, and “focus on very specific battles, units or moments of history, in order to avoid complex retellings of history” (MacCallum-Stewart & Parsler, 2007, p. 205) where the player only has the ability to affect *how* they reach the goal (i.e. the ludonarrative) and not the goal itself.

Consequently, with realist simulations where players have less agency within the gameworld and a single, rather than a multiplicity of different narrative outcomes, it stands to reason that it would be more difficult for player to gain a deeper understanding of the interplay between the historical actors/agency and contemporary conditions/structures. If the structures are fixed and unchanging, and the player has little or no agency to affect them, the game fails to be a dynamic, working model of the past and is instead a static simulation (McCall, 2012). This means that the participants demonstrating GP3 is not only particularly form-specific, but also depends on the genre, type or even individual game being played. Even slight changes in narrative structure and the constraints placed on a player’s agency can have a significant impact on their ability to learn about the tension between historical agent and contemporary conditions. As such, this particular finding, whilst remarkable, is only really applicable to some types of historical games.

Despite conceptual simulation’s focus on multiple potential narrative outcomes, and that players were aware of the various choices available to them within their game experience, the participants nonetheless had the perception that the game compelled them into making certain decisions (5.4.4). What is especially important is not whether the game actually nudges a player to make certain decisions, as without investigating these games from the perspective of their developers it is difficult to say from looking at the games alone. But, that the participants in this research held the *perception* the games exerted this pressure is significant, as it reiterates the awareness of the tensions between agency and structure is evident amongst players.

Pete felt the game “forced” him to make certain choices, and Mark specified that developers create a “narrative-assisting system” in games, in dialogue with the game structures and the player. This demonstrated that, while they felt they had agency within the game, they perceived the game structures (programmed and defined by the developers) pressured them into certain

courses of action. They were thus aware of how *agency* affected *structure*, but also the effects of the game *structure* on player *agency*. However, when participants referred to the game's pressure on their agency to make certain decisions, this occurred predominantly (though not exclusively) in relation to perceivably nudging the participants to follow the path of the historical record, rather than pressuring them to diverge from it.

The prominence of Rome as an Empire, in combination with its titular significance in many of these historical games, alongside the Roman victory conditions reflecting Roman historical events (e.g. control Italia and Magna Graecia), returns to the forefront the ideas discussed in chapter two of deterministic or teleological versions of history (2.8.1). This approach emphasises the inevitability of the cumulative events of the past, being the only possible outcome and ignoring all other possibilities (Apperley, 2013). Because the developers aligned the victory conditions of the game with a more teleological approach to history, this emphasised to participants that making decisions that align with the historical record is the ideal, easiest or most logical path to victory.

Other options are available, as the player can engage in 'free play' in strategy games without adhering to these victory conditions. Though as seen in 5.4.4, the participants frequently chose to diverge from the victory goals for the faction, though generally speaking playing counterfactually was deemed to be more of a challenge: the 'actual' path of history was considered to be the easiest course of action to take. Yet, players can be dissuaded from playing counterfactually in other ways. When they have not met the victory conditions, they are informed that despite not achieving them they can still continue playing. This can initiate negative associations for players, seen in generic forum discussions: "I can't stand the game saying basically "you failed loser [sic.], keep playing" (Toast Addict, 2010). The negativity associated with not adhering to the victory conditions further emphasises that this is an unsatisfactory outcome. As the participants in this research suggested, being 'nudged' or 'forced' to conform to the victory conditions of the game is more desirable than not doing so, because they perceived that it was easier/more logical, but also to avoid the potential dissatisfaction of playing freely without an option to win.

The above arguments, however, are seemingly only valid when applied to the titular Roman faction, which leads us to a second implication: how the games include counterfactual elements and victory goals for factions that were historically defeated, like the Iceni. These elements, by their very nature as 'counterfactual', are at odds with conceptions of accuracy and authenticity. However, participants like Leon, although desiring to play counterfactually would nonetheless start a counterfactual campaign ensuring that the troops, units etc. were in alignment with the historical record as closely as possible before doing so (5.4.5.1). Despite having the advantage of hindsight, and being able to use units that may have made victory easier in the game, he made a conscious decision not to do so, in order to make the experience more *authentically* reflect the past.

For these participants, following the 'actual' path of history allowed them to better understand the relationship between historical actor and contemporary conditions from both an agential perspective (able to make choices/decisions) and from a structural perspective (certain choices/decisions are constrained by the structures, with some options perceived to be 'better'). Yet this is also true for counterfactual play: some participants still felt pressured and constrained by the game structures to play counterfactually in some ways, despite knowing that these elements were not perceivably authentic. While highlighting the tensions between actor/agent and contemporary conditions/structure, this data also highlights the subjectivity of both the participant's perceptions of history and counterfactuals, and also the differences in the actions that players can take in games and how these contribute to these understandings. In essence, the differences between these participants in their motivations and how they decide to play allowed them to demonstrate this GP, though achieved in different ways.

In relation to GP4, that learners can differentiate between intended and unintended consequences, this appeared to manifest in the data in three ways. In 5.4.4, Danny stated that even when he started a campaign multiple times making identical decisions each time this would not always produce the same outcomes, resulting in unintended consequences. He thus demonstrated an awareness of intended/unintended consequences, but also the role of

contingency and chance in constructing a historical narrative within a game. By exemplifying participant's awareness of chance/contingency in his campaign, he demonstrates his understanding of these factors, "which underpins a genuine understanding of history" (Kapell & Elliott, 2013c, p. 13).

The second way participants demonstrated GP4 was through perceiving loss within the game as an unintended consequence. In 5.4.4, participants not only learned from their own mistakes within a game, evolving strategies to overcome their losses, but also learned from the perceived mistakes of historical agents, and used this understanding to make arguably 'better' decisions than their historical counterparts. This is where players have advantages that the historical agents did not. Players are able to see what decisions historical agents made with the benefits of hindsight, and evaluate whether these decisions had (un)intended consequences. Furthermore, they are able to replay battles, using different approaches and tactics, and evaluate which methods had the best outcomes. This replayability in conjunction with the participants' knowledge of the actions of historical agents, whilst not an authentic representation of the historical agents' actual experience, nonetheless allowed them to develop/demonstrate their understanding of this aspect of historical learning. This shows that it is not always necessary for a game's historical representation to be authentic (in the traditional sense) for a player to be able to learn about history from it.

Finally, participants demonstrated GP4 through being able to win in a perceivably 'better' way than historical agents. Although players can see that even though a battle/campaign can be termed a victory historically, this does not mean there were not negative, arguably unintended consequences. In 5.4.4, Mark made different decisions than those of the historical agents as he felt by doing so, he could succeed in his own campaign in a more efficient and economically beneficial way. His awareness of the consequences of historical agent's actions and his desire to make different decisions in his own campaign naturally overlaps with the counterfactual aspects inherent to these games, which will be discussed imminently, though it is worth making an additional point first.

Whether the participants played the games by perceivably following the historical record in deterministic ways; or felt pressured by the game to play counterfactually; whether they recognised the role of chance in history, wished to avoid historical losses or to win better through playing counterfactually: all these approaches required a prior understanding of the historical context and historical record. In 5.1.3 participants frequently looked up the historical context of the games they were playing to situate their own play experience within a narrative, and this context allowed them to feel more immersed in the game. In 5.3.1 the types of sources that participants would use to gain this context, and how they judged the comparative reliability of different sources, was outlined. This knowledge of the historical record enabled the participants to choose to follow this narrative, and to be aware of when the game was pressuring them to make certain decisions that adhered to it. Conversely, this prior knowledge of the context meant they could knowingly diverge from the historical record by playing counterfactually, as one can only knowingly play this way by understanding what actually did happen in order to diverge from it, as suggested by Atkins (2005) in 2.8.1.

However, this contextual information was almost entirely gained through learning activities occurring outside of the game and via a range of different sources: the information given within the games was considered by the participants to be insufficient, which required them to seek the narrative context for their campaigns elsewhere. Yet, once they had obtained this context, this allowed the participants to apply this understanding within their campaigns. This occurred in multiple ways: they felt it increased their immersion in the game to have the narrative context, and this in turn enabled them a better understanding of the HPT guideposts. Additionally, their knowledge of the context enabled them to play in alignment with the historical record, thus allowing them to see how history has been implemented in the game in a more immediate and visual manner than from the written texts they drew from.

This research has shown that more traditional learning methods (such as reading) were the participant's first choice for informal learning, as they were considered more reliable. Historical games allowed them to implement their prior understanding within a dynamic working model,

and to experiment with it. As we have seen previously, where the games could be a jumping off point for further research on a particular historical aspect, the reverse was also true: participants were able to see how their existing interpretations of history were implemented within a game. It seems this is similarly true when players were playing counterfactually, in that rather than there being cause and effect relationships between prior understanding and the game, the game could also cause players to (re)evaluate their understanding in light of their gameplay experiences.

When participants did play counterfactually, they were able to base their subsequent actions on the contemporary evidence for the viability of those actions (through their knowledge of the narrative context), that in this thesis was termed the rather contradicting, 'authentic counterfactual histories' (5.4.5.1). In other words, by understanding what actions historical actors took and their perceived motivations for doing so, the participants were able to assess what actions the historical actors *could have taken*, integrating these options into their existing historical understanding and evaluating what could have motivated alternative choices. That the participants based their counterfactual campaign experiences upon their prior knowledge of the contemporary evidence demonstrates the 'rigorous counterfactuals' according to Ferguson's (1997) parameters given in 2.8.1.

The participants only considered options that were actually available to historical agents, and used their historical reasoning to establish what these viable alternatives were, based on contemporary evidence for those alternatives. However, with history as a discipline, there are often huge amounts of missing data, and things that we simply do not (or may never) know. Historians must look at what the most logical/plausible causes or explanations of events, further indicating that 'history' is itself a construction. This process of evaluating the feasibility of certain aspects was reminiscent of the data in 5.3.2.1 in relation to historical accuracy. Where sources were vague or unclear, modders stated that they had to 'logically extend' history, or decide upon the most feasible option for their mods.

It is precisely these ideas of plausibility and logic that were applied by participants to their counterfactual activities, whether *experiential*, *productive* or *adaptive*. They thus engaged in the same historical reasoning as historians, in regards to both the perceived authenticity *and* counterfactuals. The ideas of logic and plausibility appear at the forefront of both historically authentic and counterfactual engagements, and have the same cognitive processes for the learner. This suggests that the skills required for engaging in counterfactual reasoning (whether in games or otherwise) are transferable skills equally applicable to more traditional evaluations of historical processes (i.e. those that align with the historical record), and vice versa. If a learner is aware of the processes involved in one activity, they are able to gain different types of historical understanding within different contexts though using identical processes, in another.

The ideas of plausible/logical counterfactuals, as stated, were especially evident within the AARTist and modding groups in this research. In 5.4.5.2, Alwyn and the Govna had written counterfactual AARs based on their counterfactual playthroughs of a game, which Alwyn defined as ‘what-if realism’. In summary, this was the use of logical or plausible units, actions or events even when playing counterfactually, with the Icenii faction, for example. Even when playing counterfactually, Alwyn would only make decisions that could feasibly have been made by the Icenii, even if he was able to do otherwise.

In the literature (2.9.2), AARs are used to evaluate the feasibility of counterfactuals, and Alwyn did precisely that. What is also significant is that Alwyn’s understanding of these different factors not only affected how he writes AARs, but also how he decided to play the game in the first place, as he is aware that some actions will make for a better story. The Govna stated his desire to play/write counterfactual AARs was catalysed by a desire to investigate the unknown, providing him with temporal immersion (Ryan, 2001). The participants’ awareness of the historical context instigated by their engagement meant they gained a working knowledge of what *did* happen historically, so playing counterfactually allowed them to see what **could** have happened. Alwyn similarly (5.4.5.2) experimented while playing to see what the best courses of action were in order to create the most interesting narratives. Rather than being a unidirectional cause and effect

relationship between the game and an AAR, it seems that the prior contextual knowledge, actions taken in the game and productive activities are not only cyclical, but influence and affect each other directly and indirectly.

Sebidee, when making counterfactual mods such as that which Alwyn used to write his *Andraste's Children* AAR, used his interpretation of logical/plausible extensions of history to create them. He desired to make the mod as feasibly accurate as he could, despite the apparent contradiction of accuracy and counterfactuals (see fig. 7). Yet, the contradiction seems to only arise when we see the end result of a narrative; for example, we know the Spartans did not exist into the 1st century C.E., and that the Iceni lost to the Romans at Watling Street. The process that Sebidee engages in (5.4.5.2), basing elements of the mod on contemporary evidence and their apparent plausibility, is the same process used by historians in reference to actual, historical events, and their causes/consequences.

Therefore, although the narrative outcomes may be inauthentic as they are counterfactual, the processes used to make a counterfactual mod and the way that players utilise them can be considered a legitimate and thus authentic process of history. It seems then that the ability to play, write, or mod counterfactually did not necessarily give the participants an authentic representation of history in the traditional sense, but it did give them an authentic experience of *being a historian*, and are examples of authentic historical practice. That historical games have the *potential* to facilitate access to this historical practice has previously been theorised (Carvalho, 2017; Chapman, 2016), where the findings of the second study have provided empirical evidence that players do routinely utilise this potential intrinsic to historical games.

Also noteworthy with the producers who made counterfactual mods is Leonard the Great's (LtGs) mod based on the films *Gladiator* (2000) and *Centurion* (2010). Although using the term 'counterfactual' to describe this mod is perhaps misleading given that these films are works of fiction with a historical setting, the significance lies in the processes LtG engaged in to create this mod. LtG stated in 5.4 that he doubted anyone who played the game would be unaware of

Maximus' (the protagonist of *Gladiator*) iconic costume. His assertion here is reminiscent of the ideas of Kathleen Coleman, the historical advisor for the film, who suggested the Rome Hollywood has created is now the only Rome that is universally familiar (Coleman, 2004, p. 57). LtG thus confirms Coleman's perspective though in relation to historical games, highlighting that some aspects of history (even film history) are well known enough to make them familiar and recognisable to players, allowing them to roleplay not only historical agents in games, but also popular characters from fictional historical films. He based most of this mod on historical evidence, but diverged from evidence when the films did. This necessitated LtG to ensure that the characters included in the mod were as accurate as possible, not to the historical record, but to the film(s).

This is reminiscent of the ideas seen 5.3.1 of 'contextual accuracy', where AARtists were 'contextually accurate' to their campaign when writing their AARs. LtG also appeared motivated by contextual accuracy when creating this mod, though contextually accurate to historical representations in popular culture. However, he also lamented the lack of sources available for the visual aspects of the mod, meaning he had to take creative licence and base some elements of what he believed were plausible for certain kinds of troops at this particular historical moment. For LtG, when making a mod for a historical game based on a historical film, he also borrowed aesthetics from the historical TV series, *Rome* (2005-2007). It appears that contextual accuracy in this particular case was propelled one step further, as LtG was not only contextually accurate to the films he based the mod upon, but also contextually accurate to the depictions of Rome in popular culture in general. This means that while he wasn't necessarily accurate to historical 'facts', he was nonetheless contextually accurate to historical fiction.

6.7. Continuity, Change, Contemporary Ethics and Societal Decline

Section 5.5 introduced multiple unanticipated findings of players' learning and understanding of history from games. The first aspect addressed is the guideposts relating to Continuity and

Change, or more particularly the lack thereof within this research. As stated (5.5.1) these guideposts were seldom demonstrated by participants, and when they were, it was predominantly history-consumers that did so, GP3 excepted (discussed further below). This could suggest multiple interpretations. Firstly, these participants had an existing understanding of these issues due to their formal studies, and were perhaps more attuned to recognising when these elements were represented in the games themselves or through their external learning activities. Secondly however, this could mean that historical games are less suited to conveying these aspects of the theme, even in conjunction with surrounding activities related to the games. However, more will be said about the utility of Seixas and Morton's (2013) framework for empirical research with games in 7.4.

The participant's understanding of Continuity and Change and Progress and Decline (GP3), was interesting as two American participants, Mark and Redslayer, made comparisons between ancient Rome and contemporary America (5.1.2, 5.5.2). When Redslayer made this comparison, he outlined the reasoning for his perceptions of the *decline* of America (through corruption, etc.) by identifying elements that he felt contributed to the historical fall of the Roman Empire. In other words, he felt that contemporary American society was mirroring the narrative leading to the fall of the Roman Empire, and assumed America would decline in a similar way, using the past to make sense of his perceptions in the present. He imagines Rome as an ancient America, an analogy that appears in previous literature, where "the comparison is by now so familiar, so natural that you just can't help yourself: it comes to mind unbidden" (Murphy, 2007, p. 5).

This perception of America as a new Roman Empire is one arguably propagated by America itself, through their classically-styled governmental buildings with pillars, their senate, military arrogance, political and cultural hegemony (Cyrino, 2004) as well as their conceptualisations of immigrants as barbarian hordes (Murphy, 2007). Representations of antiquity in popular culture have similarly evoked these parallels between America and Rome, where through this analogy the image of Rome provides a screen onto which contemporary concerns are projected (Futrell, 2001, p. 6). That these aspects of architecture, government, dominion and 'barbarism' have become

correspondingly mapped into games about ancient Rome is unsurprising given how tropes within visual culture tend to transcend different mediums, but these strategy games in particular with their focus on military dominance seem particularly well suited to representing these elements.

Therefore, Redslayer sees the relationship between the virtual/global context of the game (ancient Rome) and his local, situated context of play (America), establishing a *configurative resonance* (Apperley, 2011) between the two. Furthermore, that this is in reference to a historical game means that the concept of *historical resonance* (Chapman, 2016) is applicable here, as the resonance between the global and local contexts can be “established on the basis of the player’s specifically *historical* understanding, gleaned from their lived cultural experience, including their engagement with historiography in different forms” (Chapman, 2016, p. 36). Redslayer draws the comparisons with America referencing the more negative conceptions of the Roman Empire, emphasising the corruption over the glory for example. Murphy proposed that “[d]epending on who is doing the talking, Rome serves as either a grim cautionary tale or an inspirational call to action” (Murphy, 2007, p. 6). It seems with these participants, the former appears to be the most prominent in terms of their respective historical resonances, suggesting a negativity bias in their evaluations of the ancient world. Though on respect to GP3 of this theme, Redslayer’s data indicates he perceives Rome’s decline is similar to that of contemporary America.

Philip also made comparisons between the global context of the gameworld (Rome) and his local context (UK), highlighting the parallels between their respective class systems (5.1.2). While this was outlined in terms of Historical Significance in how the past can highlight issues about contemporary life, this data also has implications for the Continuity and Change theme. The game reminded him about the stratification of the class system in the Rome and how he could see the same in his local, contemporary context, meaning that they had a particular *historical resonance* for him. Where Redslayer previously used the past to understand the present, inversely Philip uses the present to understand the past. That fact he made this assertion indicates the continuing impact of the image of Rome on British national identity that may be a remnant from the British Empire, of which the American ‘Empire’ is considered a successor (Murphy, 2007).

That participants here who compared ancient Rome to their local context were doing so in reference to western, English-speaking countries further reiterates that Rome continues to be how the anglosphere “measure their own cultural, political and material achievements.” (Joshel, 2001, p. 2). Yet in the case of these participants, it appears that the image of Rome creates a historical resonance with them that allowed them to highlight the perceived failings of their local (societal) contexts, and was cause for concern rather than celebration.

What the previous literature in conjunction with the data in this research demonstrates is that the local context of the player, as well as their subjective interpretations of history, are significant in terms of how players understand and learn with historical games: as previous theory has suggested in relation to learning more broadly (see 2.3.1). As Carr notes, “[t]o learn about the present in light of the past means also to learn about the past in light of the present. The function of history is to promote a profounder understanding of both past and present through the interrelation between them.” (Carr, 1961, p. 62). The participants above highlighted the nature of progress and decline in terms of their contemporary significance of perceived failures of contemporary society, through analogy with a historic parallel. This was no less true with the data relating to the Ethical Dimension more specifically, where there also seemed to be the perception of societal decline in the present rather than progress. Furthermore, it was not the historical injustices of the past that participants were responding to, but contemporary injustices (ED: GP4). It seems that this awareness of the past gave them a different type of understanding of the present, giving an empirical grounding to Carr’s words.

The main ethical points for consideration raised in section 5.5 were in respect to two things with contemporary significance: misogyny and negative portrayals of female characters in *Fallout: New Vegas* (2010), and homosexuality and the military. With Caesar’s Legion in *Fallout*, both Philip and Mark rejected their depiction in the game for different reasons, though both reasons came down to broader perceptions that it did not adhere to their conceptions of a Roman Legion. This suggests that the game does not have a *historical resonance* with Philip given that Caesar’s Legion doesn’t align with his existing understandings of what the Romans were like: in this way the game

has produced what Chapman (drawing ideas in Apperley, 2010) terms *historical dissonance* (2016, pp. 43–44).

Often this idea of *historical dissonance* occurs in two ways: the first that the player makes decisions in a game that are specifically intended to produce a historical dissonance, such as playing counterfactually. The second, where the player sees that the gameworld (global context) does not reflect his local context (prior conceptions and understandings), seems to reflect the issues that Philip has with the representation of the Legion in *Fallout*. What these dissonances highlight is that Philip's capacity to obtain meaning from the Caesar's Legion is very much determined by his own expectations of and assumptions about the historical legions, just as Redslayer previously had displayed *historical resonances* in a similar way based on his personal understandings.

Of course, the *Fallout* series are not historical games specifically, as they are not set in history, but instead in an alternative dystopian version of the future. Despite this fundamental difference between the other historical games in this research and *Fallout* (being set in the future), Philip and Mark still made comparisons with the historical Romans as they understood them, and found the representations problematic.

Mark specifically referred to Caesar's Legion's depiction of women in the game as creating a historical dissonance for him. With Mark however, in addition to this dissonance was his concern that some players use Caesar's Legion as "a model for how things are", a conception that is problematic precisely because of the diminished and subservient roles of women within the society of Caesar's Legion. As stated (5.5), women in Caesar's Legion are enslaved camp followers, used for healing and breeding, which may actually be a reflection of women's perceived roles in history itself, which has then become applied to games.

Schut (2007, p. 220) argued that an issue with history as a discipline is a lack of female representation or awareness of women's changing roles over time, with western histories biased towards the masculine. Historical games tend to replicate these aspects of history: "[a]lthough the

discipline of history has been busy correcting this significant problem, digital games tend to reinscribe it" (Schut, 2007, pp. 220–221). Often this is purportedly due to historical games' focus on war (conceived to be a typically male activity) and that men are more likely to play violent games (Hartmann & Vorderer, 2010, p. 94). In addition however, there is a cyclical relationship: because men are more likely to be focal characters represented within games, men are consequently more likely to play them (Williams, 2006).

As such, although more recent statistics have demonstrated that around half of digital game players are female (Casti, 2014) the industry still tends to create games with the presumed player as male, and women are given correspondingly stereotyped roles. Female characters only tend to be included in historical games in specifically domestic roles, indicating "the problematic historical narrative that the mainstream games industry seems to often subscribe to, namely that women were not also part of, affected by, and even integral to, systems of historical politics, economics and warfare (Chapman, 2016, p. 178).

If we return to Mark's data on how Caesar's Legion treats female characters in *Fallout*, we can discern that it is not a historical injustice he is responding to, but the contemporary connotations of other players using the Legion as a model for "how are things are". However, in approaching his data we must view Mark's statement in light of his local context, but also the cultural context surrounding women's representation within games and gamer culture more broadly. Over the last several years, misogyny in gamer culture has been frequently highlighted in the media, culminating in the 'GamerGate' controversy in 2014. Purportedly a grassroots campaign by gamers promoting better ethics in games journalism, it followed several years of harassment and attacks against women, and one was "just one of several gendered online harassment campaigns" (Mortensen, 2018, p. 788). Game developers and journalists were subjected to such harassment, but also academics - especially those researching games from a feminist perspective (Chess & Shaw, 2015). It appears that the "poignant example of the sexism, heterosexism, and patriarchal undercurrents that seem to serve as a constant guidepost for the video game industry" (Chess & Shaw, 2015, p. 208) moved far beyond games, and the industry, itself.

Although it may appear that the developers of *Fallout* were simply ensuring such characters treated women badly in accordance with the Legion's characterisation, or that they may have been aligning with some sort of perceived historical precedent in terms of women's roles in history, it is the contemporary significance of his claim that is the most concerning. The players Mark referenced who think of Caesar's Legion as a model for how things are (or should be) are thus products of a patriarchal society, and consumers of media from an, arguably, patriarchal games industry. The fact that games still seem to be the realm of the young, white male also contributes to the sense that they are protective over the traditionally masculine space of video games (Mortensen, 2018); often gamers have had to defend their gaming interest in the past which means they have often felt marginalised and misunderstood (Chess & Shaw, 2015, p. 217) while in the case of Gamergate, simultaneously marginalising and oppressing others.

Often, the image of the past, or a representation of a historical figure can be used to legitimise questionable political or cultural leanings, with its historicity used as a scapegoat for any problematic representations (or the lack of representations of particular groups). This has occurred with other historical games, such as *Kingdom Come: Deliverance* (2018), criticised for its lack of racial diversity on its release (Plunkett, 2014). It was however (misguidedly) defended by the development director on the basis that it was historically accurate (Inderwildi, 2018). However, historical accuracy is also used by players to descry the more diverse historical representations in games that exist, such as the outcry by players over the ability to play as female characters in *Battlefield V* (2018) (Farokhmanesh, 2018).

Although *Fallout* is not set in the past, the image of Rome has been used in common culture, as well as in an array of media to legitimise problematic (often right-wing) ideologies. The Nazi use of Roman iconography such as the Roman eagle, and its prominence in Leni Riefenstahl's *Triumph of the Will* (1935) propaganda film is a pertinent example. Whilst the developers of *Fallout* seemed to reference this particular conception of the Romans in their depiction of Caesar's Legion, some players are oblivious to the analogies with fascism. They see Caesar's Legion not as a symptom of a dystopian society, but as something that should be aspired to, especially in their treatment and

marginalisation of women, as Mark's data indicated. Through alluding to history, this invokes a historical precedent, and also reinforces the marginalisation of women that players see within game culture and within society. This is exceptionally problematic when considering learning through, and with historical games, given that digital games often reflect society, but also have the capacity to influence it.

Studies have demonstrated that the properties of games can influence the gender identities of players (Dietz, 1998) for example, by suggesting women should be beautiful and helpless, and men protective and possessive. If a historic parallel is used as a precedent, this corroborates and empowers the representation, giving it more perceivable authority. This means that players may base their understandings of the past and present based upon such factual distortions and problematic morality, which has implications for historical learning. Although the participants in my research questioned the authenticity of the representations in games and did not take them at face value, "it would be an error to assume that those who understand what they see in the media is not real are invulnerable to the messages being presented" (Dill, Gentile, Richter, & Dill, 2001, p. 126).

This brings a more cautious slant to Elliot's statement that "the past should be altered by the presence as much as the present is directed by the past" (Elliot, 1951, p. 14) as if we are allowing the present to alter the past, to what end if the present (historical games) is based upon assumption and misinformation? The data in this research has highlighted the need for developers – as well as the learners of history - to remember and respond to the injustices of the past (Seixas and Morton, 2013) both in ancient and recent history, in order to influence the present in more positive ways. As I argue in a forthcoming publication, and has been seen here in reference to *Kingdom Come: Deliverance* (2018), historical accuracy is often used as justification for maintaining problematic or sexist characterisations in historical games. If notions of 'accuracy' are removed (as in the futuristic setting of the *Fallout* series) games should instead aim to offer historical representations that are morally aligned with the inclusive values of contemporary society (Beavers, forthcoming 2019).

Finally, in regard to the other main finding relating to the Ethical Dimension, James and his son had conversations about the different perspectives on homosexuality and the military between antiquity and in contemporary society. His son found it remarkable that homosexuality was accepted within the ancient context, something that is less true of modern military forces. Like the previous participants in this section, John's son was comparing what he saw in the game to his own understandings of the same issue in contemporary society where there has been constant issues (especially in America) around LGBTQI in the military. It was only in 2011 that the law banning openly gay people from serving in, or being discharged from, the military based on their sexual preference was repealed (Powers, 2018) and more recently the American president has banned transgender personnel from serving in the military, producing much anguish and uncertainty for the thousands of trans soldiers currently serving (Mindock, 2017).

Like other participants, James' son found there to be a *historical dissonance* between the representation in the game (global context) and that of his own contemporary understanding (local context). However, in terms of learning, this dissonance caused his son to undertake research and engage in conversations with his father, where their experience with the game was integral to these learning activities – both in terms of historical learning and also in understanding contemporary issues. Like in 6.3, the game was a central point of reference that motivated learning activities that moved beyond the games, which produced new knowledge and understanding of both past and present concerns.

The overlaps between Continuity and Change, Progress and Decline and the Ethical Dimension have been demonstrated both in the findings chapter and in this discussion (see fig. 7). The fact that nations such as the United States and the UK (rather than individuals within these societies) are considered cultural descendants of the Romans (Cyrino, 2004; Murphy, 2007) suggests that this may have a large part to play in this perception of the continuity of history, in terms of the class systems, for example. It seems to be the continuities that participant's tended to highlight, rather than the, arguably stark changes that have occurred between antiquity and today. Through comparisons of the ancient world represented in the global context of the gameworlds with the

local context of contemporary societies, various historical resonances and dissonances have been highlighted, based upon the individual participant's prior assumptions and understandings.

Despite the variety of the participants' interpretations of the games' representations of the past in light of the present, and the diversity of their conclusions, there nonetheless appeared to be a commonality among them. Each of the participants highlighted issues and/or ethical considerations about the contemporary world, using the ancient past as an analogy to understand and reiterate these concerns. There was the perception that the contemporary world represents a decline for certain groups rather than progress (i.e. homosexuals or women), and concerns raised about this decline continuing.

Although this may be indicative of people's perceptions of contemporary society more than the ancient context, the fact that this awareness is gained through engagement with history is, in fact, an essential reason for the study of history. It seems that a profounder understanding of both past and present that Carr (1961) referred to has been demonstrated in this research in relation to the Ethical Dimension, that whilst not occurring from directly experiencing the games, certainly occurred in light of and in relation to them.

6.8. Summary

The findings and discussion of my research have highlighted the entanglement of different types of historical media, whether fictional or purportedly factual. Games are just one component of how the participants engaged with history across a range of different media and platforms, where there is little delineation between fact and fiction, and one aspect overlaps bleeds into another. Historical games allow players to implement and experiment with the histories they have become aware of through external sources, creating new understandings of the histories represented in both. Historical games can also function in the opposite way, as a jumping off point or springboard to further research, which once established can also reapplied to the game resulting in new understandings. This appears to be the value of historical games in relation to learning, not

as an individual, isolated medium, but integrated into a range of other informal learning activities and historical practices.

Chapter 7. Conclusions, Limitations, and Future Research

7.1. Research Summary and Contributions

This thesis aimed to answer the two questions of *what*, and *how*, players learn through engaging with historical games. This research has contributed to the historical game studies field and has demonstrated the importance of narrative to players of historical games, and how these narratives are layered across different media, and even different informal learning activities. The historical narrative upon which game events are set (i.e. the ancient context) were investigated, alongside personal narratives produced by players that gave context to their actions within the game. In turn, these narratives are overlaid with the (ludo) narratives created by the player through their decisions in the game, where their activities outside of it (such as seeking historical context to make their decisions in the game ‘accurate’ to the historical record, to knowingly diverge from them, or to write narratives based upon their play experiences) also affected what choices they chose to make within the game: each feeds into each other, overlaps, and works in a multidirectional way. Regardless of how the participants generated or engaged with a narrative context, having a narrative in which to anchor the gameplay served to make their experience more *immersive*, a key component relating to learning in this research.

Participant’s immersion in the games gave them a sense of presence in the game worlds, and facilitated their ability to engage in Historical Perspective Taking. The immersive properties of the game form produced a closer relationship between the player and the historical world that the game represents, and was a strength of the medium in regards to historical learning. Participants saw themselves as ‘in’ the game, as actors within the historical narrative, and equated their experiences with the game as a form of historical re-enactment. Theoretical assertions made previously in the literature (e.g. Rejack, 2007) suggested historical games can constitute a form of historical re-enactment. This thesis has provided empirical evidence that players themselves *do* view their experiences as re-enactment: a significant finding of my research in respect to

broadening our understandings of how players interpret their engagements with specifically historical games.

Through viewing their game experiences as re-enactment, participants were better able to understand historical perspectives, in light of that particular historical context. In turn, any suffering they felt through their immersion in the re-enactment experience made them feel the experience was more authentic, as it was seen to better reflect the negative experiences of agents in the past. In the first study, this 'negativity bias' was demonstrated with particular reference to tragic historical narratives in films and TV invoking sadness, and depictions invoking disgust, and were perceived as more authentic representations (4.4.2). That this effect is evident in engagements with historical media in many forms (and not only in political, non-fiction media) was an important finding. The identification of the effects of negativity bias in this research as a whole has thus provided an original contribution to knowledge, especially with TV and film where the tragedy of the narrative or aesthetics of the representation producing perceptions of authenticity has not been found in previous research. In addition, study one was one of the first to compare the differing perceptions of historical TV, film, and games in depth, on the basis of both learning and perceived authenticity, which provided more comprehensive insights than previous research (e.g. Houghton, 2016).

In the second study, negativity bias was induced through the suffering that participants felt through their engagement with the games. Previous literature equated suffering with 'authentic' traditional re-enactment (Agnew, 2007). Theoretical works with historical games suggested that suffering specifically through a game's challenge had the potential to produce a more authentic digital re-enactment experience (Chapman, 2016). My findings have thus empirically confirmed that suffering through challenge in historical games does indeed produce perceptions of an authentic experience. Though my research also expanded the definitions of how this suffering occurs, in terms of the suffering through an emotional connection to characters, and through the perceived immorality of a player's in-game actions. This finding thus provides greater insights than previous research on how suffering can be elicited in historical games, and the impact this

suffering has on player's historical understanding and their perceptions of the past. Yet, it also showed how participants would make decisions that appeared to authentically reflect the actions of historical agents, despite these actions conflicting with their contemporary sense of morality. This shows how digital re-enactment aids players in contextualising the actions of historical agents, even when these actions do not align with contemporary sensibilities.

Notions of suffering also had implications for the Ethical Dimension, in that participants made decisions based on their perceptions of the historical context and not contemporary standards. However, other (UK and US) participants found their game experiences revealing of issues in contemporary life, due to the parallels between Roman and contemporary western societies, rather than the differences between them. The research has thus demonstrated that players use their perceptions of the present to understand the past; and also that their understanding of the past informs their conceptions of the contemporary world.

The fundamental assumptions of players that games are not historically authentic was evident in both studies, where in study two participants self-reported that they learned only peripheral aspects. This meant they often rejected games as viable sources to learn from, turning instead to more perceivably authoritative sources for learning. Whether this perception is verifiably 'correct' is not as important as the discovery that the respondents/participants in each of the respective studies perceived that this was the case. This is a perceptual barrier that must be overcome when using historical games for learning: the predisposition of existing biases towards the form implies players will reject the representations seen in the game as authentic, thus they will often disregard the content unless confirmed by other sources. This said, critically analysing such media on this basis is a useful skill when applied uniformly to all sources. As we have seen, the perceived inaccuracy of historical games causes learning to occur through other activities, such as modders *adapting* games to make them more authentic, and players *experiencing* more accurate games through implementing such mods.

AARtists used the term 'contextual accuracy' to define their AAR's fidelity to the game's events, a definition that had broader implications for the guideposts for other themes. In terms of the sources used for corroborating the game events, non-history consumers appeared more likely to use ancient sources, where the history-consumers more commonly used academic references. All participants used online resources, though where textual sources were considered to be more authentic than games, they still had perceived limitations (though *communicative* forum interactions were also considered to reliable sources of information for both history and non-history consumers).

Modder participants especially perceived that authentic representations increased their *immersion* in the games, though the consumer's immersion was not particularly affected by perceived inaccuracies, indicating the subjectivity of player's perceptions. Participants recognised inaccuracies in historical games being a result of their formal pressures affecting the representation of the historical content, highlighting the evident tensions between accuracy and immersion, accuracy and entertainment, or the represented history and the game form. The findings of the second study thus reinforced those of the first, in terms of how players more broadly attribute inaccuracies in games to the perceived entertainment and economic motivations of developers, as well as considerations of historical games' formal structures.

Written texts were seen as the most authentic medium for reference, despite some participants' scepticism even of written sources. In the first study, when TV and film were perceived to be adapted faithfully from the written source material, they were seen as more authentic (4.4.2). However, this occurred even with written texts with fictional narratives only tangentially related to the facts of the past. This highlights how the nature of 'authenticity' is differently interpreted and defined by various audiences, depending on the medium involved in the remediation, and the purposes of the account.

Generally speaking, games were seen as the least authentic medium, compared to historical film and TV. Perhaps games, as one of the newest media for representing history (and text as arguably

one of the oldest, and most omnipresent in contemporary culture), contributes to this perception of games' comparative inauthenticity, where the longevity of a form may be synonymous with its perceived legitimacy and epistemological validity. As other forms of historical representation increase in prevalence, such as Virtual Reality (VR) and Augmented Reality (AR), perhaps historical games will move up the trustworthiness hierarchy due to the reasons established here. Though how the formal structures and affordances of an interactive medium exert pressure on the historical content, such as the necessity for the interactivity to be entertaining, will always appear to be a key factor in how players self-perceive historical games for learning.

A knowledge of the historical record of events meant the participants in the second study were able to diverge from this narrative, as far as the structures of the game allowed. Participants used the same terminology (time taken, challenge) to describe digital re-enactment *and* playing counter-historically, though only in the former were these elements found to produce perceptions of authenticity. However, authentic counterfactual campaigns *could* be played, AARs written, and mods produced that while not strictly 'factual' could nonetheless be done so in authentic ways. While a contradiction in terms as counterfactuals are inherently 'not factual', this research data has shown the complexity of the participant's perceptions of counterfactual histories, and how they negotiated these complexities. How consumer and producer players enacted counterfactuals and the relationships between their informal learning activities (e.g. a modder making a counterfactual mod, which a player engages with, and perhaps writes an AAR about) was a key finding of this research, providing more empirical depth to previous theory about the interplay between these activities.

Conceptual simulation games appear particularly well-suited to eliciting understandings of the Cause and Consequence theme. Players felt forced into positions by a game just as historical actors were often forced into positions by circumstance. This, in turn, meant participants were able to demonstrate an understanding of historical contingency. Game's formal structures and pressures, and how they represent historical processes particularly enabled this understanding.

Players can make decisions and receive immediate feedback on them, discovering how their actions play out.

With particular reference to Cause and Consequence: GP3 (*student identifies interplay between the actions of historical actors and conditions at the time*) an awareness of this GP was consistently demonstrated by participants. I suggested this was due to the particular affordances and constraints of the game form, specifically how they map to history: a strength of the medium in respect to this element of historical understanding. More broadly, counterfactuals were particularly important in terms of how participants engaged with games, and were still achieved 'authentically' despite the apparent contradictions and paradoxes, even with modders for whom accuracy is comparatively important. This is a clear advantage of the game form for historical learning, as viewing, enacting and changing history are a particularly immediate method of engaging with the past, especially in terms of being inserted 'into' a historical narrative or world. This mystery of the unknown – of what *could have happened* – had a particular appeal for consumers and producers in this research alike, and enabled them to learn about historical processes and develop their understanding of historical Cause and Consequence.

The fact that counterfactuals were played and modded 'authentically' also indicates, in the eyes of these participants at least, that the delineation between 'actual' and counterfactual history is not straightforward: again, these boundaries were blurred in the minds of these players. Having a sense of presence in the game world allowed them to engage with counterfactuals in a way that meant they were not looking back at the decisions of historical agents, but instead saw the necessity of making these decisions as emergent, seeing their decisions as concurrent or contemporary in the game world. They made decisions within a historical context, looking forward to the outcomes, not back to the historical consequences.

The fact that Continuity and Change and the Ethical Dimension guide points overlapped so profoundly could also be due to negativity bias. This was shown to be prevalent in both studies one and two, particularly in relation to suffering, and also in the second study of the negative perceptions of the contemporary world. As Murphy (2007) noted, the idea of Rome can be seen

as inspirational, or as a cautionary tale. The second study participants' focus on the latter implies a negativity bias towards narratives of decline (perhaps aligning with the tragic narratives identified in the first study in regards to TV and film) and towards contemporary ethical concerns such as misogyny. However, again this bias was subjective, depending on the participant's individual perceptions of the historical and contemporary societal contexts.

This research has shown that negativity bias is prevalent in the reception of historical representations. In the second study, participants were aware of the historical context and thus rejected the perceivably negative representations of 'Caesar's Legion', where other players may not. We must be mindful of this effect as players of such games who do not know the context, or have no inclination to engage in further research about it, may be more predisposed to take such representations at face value precisely because of the effect of negativity bias. Games have the capacity to influence players, so those who desire to use historical games in educational practice must be mindful of the effect of negativity bias, and encourage learners to critique the represented history and their interpretation of the history, reflecting on both while maintaining awareness of the effect of this bias. Developers likewise must be aware of this bias in games, and need to carefully consider how their interpretations can influence historical game players, and whether this influence reflects their authorial intention. This finding, and indeed this thesis as a whole, could thus also be used by historical game developers to better understand how players engage with, and make meaning from historical games.

Participants in the second study believed what could be learned from games was limited, and largely superficial. Data gathered from participants relating to their peripheral learning of history was collected, in terms of the potential of historical games to relay information such as names, unit abilities/arms, and geography. In many ways, this reiterates the findings of the first study in terms of the perceived authenticity of material culture, where often this was the only aspect of historical games that was perceived as authentic. Although knowledge of these peripheral elements does not qualify as deeper understanding in the context of Seixas and Morton's (2013) framework, nonetheless they are the first stage – the foundations or building blocks – of this

understanding. Therefore, their inclusion within the findings of this research was warranted. This is similarly true for Peripheral Technical Learning, where players often must acquire technical skills in order to play these games – sometimes learning languages, how to fix bugs or how to create and/or install mods. This said, while these elements can provide the foundations for deeper historical understanding to occur in other ways, through further research, this requires some commitment on the part of the player who must be intrinsically motivated to engage in these information-seeking activities. This motivation was key to learning with historical games, as the games alone are not enough in themselves to provide a deeper and comprehensive understanding of history.

With modders, higher-level technical skills are even more important. Once they can implement historical information into a working mod, an unknown number of players then have access to them and apply these mods to their own game. When we consider that just one of the participants in this research, Sebidee, has had his mod downloaded by over 10,000 players (at the time of recruitment), this gives an idea of the potential impact upon learning that these mods, and games, can have. With so many players engaging with a mod, providing feedback on it and perhaps carrying out their own research on the content, this indicates the enormity of the networks and cycles of historical exchange (Chapman et al., 2016) and their significant impact on the contributory strands of knowledge that build a more comprehensive understanding of history.

To summarise briefly the answers to the research questions, demonstrations of Historical Perspective Taking, Cause and Consequence, and peripheral learning occurred profoundly through direct engagement with the games, enhanced by learning activities outside of them. This indicates that these are the main contributions from this research, in terms of what players can learn directly from historical games. Participant references to the Epistemology and Evidence, Historical Significance, Continuity and Change and Ethical Dimension guideposts were sometimes lacking (with the latter two themes especially), and mainly evident through surrounding learning activities in relation to the games and in reference to them, but rarely directly from them. It was

through these surrounding activities that the participants' engagements with the games were able to take on additional meaning.

Although participants were sceptical about what they could learn from games, this research has shown that games can provide, enable and facilitate a deeper understanding of some of the historical thinking concepts (Seixas and Morton, 2013) even if this was interpreted by the researcher and only implicit in participant's assertions: they may not even be aware of it.

However, although they often demonstrated the guideposts in reference to games, one cannot say conclusively that they obtained this understanding directly from them. Their prior knowledge, experience, context and other previous and concurrent learning activities all contributed to the learning occurring with historical games, and to the participant's understanding. Trying to distinguish between all these factors to specifically locate where and how the learning is taking place was difficult, if not impossible, as often the participant's themselves did not know from where they learned things, were not directly aware of them, or may not have reported them accurately (intentionally or unintentionally).

A considerable contribution of this research is how it has started to map these complex networks between learning history through games, in terms of the different learning activities and knowledge outcomes at an individual, local level (see fig. 7). This thesis has made multiple significant contributions to knowledge, which have been described and depicted thus far in this chapter, and throughout the previous chapter. To summarise these key contributions:

- This research addressed adult learning outside of formal contexts, in regard to all the different types of historical knowledge. It has provided far greater depth to previous research about how people perceive different historical media for learning, and their associated expectations and assumptions of learning with said media;
- To my knowledge, this is one of the first empirical research projects to interview Modders, AARTists and LetsPlay video producers on the basis of their activities

with historical games, and shows the collaborative community practice that echoes more conventional forms of historical discourse. More broadly, it is the first to compare the experiences of players with and without a formal educational background in history;

- This research has also given methodological contributions, where Seixas and Morton's (2013) framework has never been applied to data as a tool for empirical analysis, nor to my knowledge has my approach to digitising the activity diaries been found elsewhere in the literature;
- My work has also offered new definitions of concepts, such as game tourism and contextual accuracy, and also new dimensions to and different understandings of existing concepts, such as negativity bias. The notion of negativity bias had not previously been applied to historical media. It has also provided new insights into particular concepts such as authenticity and suffering, discovering new ways that this manifests for players of historical games.
- Finally, my research supplied a comprehensive guide to the connections between different learning activities and different historical knowledge outcomes, and how these activities are highly interdependent and often seamlessly blend (fig.7)

To expand upon the last point here, this research has begun to plot the interplay between different (types of) players. Players with a formal historical background and those without, between players and LetsPlay producers, players and modders, or modders and AARtists, and how these activities are inherently related and often highly interdependent. Modders, AARtists, and LetsPlay producers are first and foremost, players of historical games. The interplay between these different learning activities in relation to different types of players, and the influence upon learning that these dependencies have, are indicative of how the lines between informal and formal learning, and learning activities and outcomes, have become increasingly blurred.

7.2. The Subjectivity and Blending of Learning

Participants in the second study outlined how their engagement with historical games reinforced understanding learned from other means, such as formal historical education, previous informal learning, and engagements with other historical media. Additionally, the first study included respondents who had engaged in media and game tourism, contributing to the formulation of new definitions of what these activities can entail: a significant addition to our knowledge of how people engage with all forms of history. This highlighted another key finding in this research: that learning has become blended between formal, informal and incidental learning, from the games themselves and across different learning activities. Although not all participants had an academic historical background, the fact remains that the (seemingly arbitrary) line between informal and incidental learning is not actually clearly demarcated. This finding has implications for learning with historical games, and perhaps even learning in more general terms in the contemporary world.

Where some participants would learn something incidentally from the games that would motivate informal learning via other means, others would use the games to implement and investigate something they had experienced elsewhere (formally or informally), and creating new learning opportunities in the process. Even professional historians have found that historical games can provide new interpretations of previously held understandings of history (Ferguson, 2006). This demonstrates how games can afford a player to challenge their previously-held understandings of history, providing them new historical insights.

For the participants in my research, engaging with the games did not detract from their other historical learning activities, and in fact complemented them. As Rosenstone notes, a new historical form does not “do away with the old forms of history – it adds to the language in which the past can speak” (Rosenstone, 2006, p. 6). For these participants, the past had multiple languages in Rosenstone’s terms, as there were significant overlaps between the games and other

historical activities and other historical media. There was rarely a linear chronology where a game provided a starting point to other learning activities: these occurred simultaneously both in relation to the games and separate from them, cross referencing and affecting players' experiences of each media. The learning occurring through and with historical games is multifaceted, happening on latitudinal as well as hierarchical directions. Although participants often reported that the things they were able to learn directly from the games were superficial, nonetheless these peripheral elements underpinned their deeper historical understanding of the past, an aspect that this research has demonstrated. However, rather than being directly from the games themselves, this deeper understanding is more due to their surrounding activities and media consumption, of which games are merely one element. It appears that for the participants, learning activities surrounding their game experiences are what they *perceive* are most valuable for their historical understanding, though the games allow them to implement their understandings within a dynamic model of the past.

That the games are influenced and cross-referenced by other learning activities is evident within the historical game cultures that this research investigated. The modders in this research have sometimes had tens of thousands of players download their mod. The AArtists similarly have had many thousands of readers, and the LetsPlay producer hundreds of thousands of viewers.

Though, the amount of people who may have discussed their work either on or offline becomes exponential. These figures begin to convey the predominance of these engagements and the reach that these learning activities can have on other players, where their engagements with these specific play-related activities also feed into other player's understandings of the past.

Some of these activities moved beyond the scope of this research, which investigated only a small percentile of participants at a local level. Yet this research has been one of the first to interact directly with producer players through interviews. Previous research has only looked at historical game Modder and AArtist forum discussions (e.g. Crabtree, 2013; Mukherjee, 2015) as evidence of producer practices. My research has expanded these prior understandings empirically, in terms

of producer's motivations, thought processes, and historical skills when engaging in these activities, and specifically how these link with informal historical learning.

Just as these outside activities influence players' understandings of their game experiences, the games themselves can also influence their understanding of history, as demonstrated by the findings of these studies. Games are just one strand in the complicated web of a player's historical consciousness, which is influenced and affected by different media and perspectives. Although games alone may have limited capacity for engendering historical learning according to participants' self-reported perceptions, their value then is in relation to the surrounding learning activities and integration with other media, as they are able to provide different historical insights to more traditional historical forms, and in hugely diverse ways.

Something highlighted repeatedly over the course of this thesis was the subjectivity of participants' experiences, both of learning and of their game and game-related activities. Participants demonstrated historical understanding in relation to the historical thinking concepts, though this understanding occurred in a variety of different ways. For example, while some participants would engage in *assimilative* activities to judge games' authenticity by comparing representations seen in the games with primary and secondary sources, others would *communicate* in off and on-line discussions to evaluate the authenticity of different media, of which a game was just one point of reference. Artists would engage in *productive* activities using the game as a primary source for their narratives, where Modders would use secondary and visual media sources in order to *adapt* the games to make them more perceivably accurate.

All participants made judgements about the authenticity of different media, though approached these judgements in different ways and via different learning activities. Although only one example of many, the types of activities the participants' engaged in were governed by their personal preference and motivations, and were individually defined. So too, were their specific game experiences subjective and unique, given the individual choices afforded to the player of what actions they choose to make within the games. This meant there were contradicting

perspectives amongst the participants in these studies, demonstrating the fundamental subjectivity of their engagements with history in all its forms.

The extent of players' historical understanding was also dependent on their cultural/local context and their *historical resonances/dissonances* (Apperley, 2011; Chapman, 2016) in relation to the gameworld. The participants' concurrent engagements with history in all its other forms (such as written texts, documentaries, visual media, social media) reiterates the subjectivity not only of their learning activities, but also the nature of their historical understanding. This means that not only was their experience of learning ultimately subjective and unique, but also the types and nature of their historical understanding was similarly so.

The participants in the second study were extremely motivated, both in their interest in history and their desire to play historical games in general, especially those with levels of complexity in this research. That this intrinsic motivation also affected the extent of the learning activities they engaged in outside of the play experience – and also their willingness to participate in this study – may also have been key factors that impacted the extent of their learning through and with historical games. Participants did not learn from these games just by the fact that they are games, or because they happen to represent history: players were exceedingly intrinsically motivated to engage in other learning activities outside of the games, that far more frequently resulted in deeper historical understanding.

The qualitative approach to this research means that these findings cannot be considered generalizable beyond the scope of this study, as many less-motivated players may not engage in learning activities to the same extent as the participants in this research, if they engage in any at all beyond their play experience. Although this research has been an important first step in empirically assessing informal learning of history with historical games, the variety of human experience and the motivations/characteristics of individuals are key factors that must be taken into consideration when establishing what and how players can learn through them.

7.3. Research Limitations, Methodological Contributions, and Future Research

The studies within this thesis have started to provide an empirical basis upon which to assess what can be learned about history from games, and how it is learned. However, in terms of the frameworks used to analyse the data, there were some limitations. Firstly, given the breadth of activities that participants were engaging in, pinpointing the specific activity that resulted in learning often became problematic, as multiple activities might be taking place simultaneously, such as reading information about a unit (assimilative) while playing a historical game (experiential). This meant that there was much blurring between the boundaries of these activities as it was not always clear what types of learning activities were best suited to providing specific aspects of historical understanding.

This was also true for the guideposts specifically assessing historical understanding, where often there was overlap not only between the 6 concepts, but also between the guideposts for those concepts. Although Seixas and Morton (2013) themselves highlighted the connections between these elements of historical understanding, this blurring of the boundaries between the concepts sometimes caused a lack of precision. However, Seixas and Morton's (2013) framework is intended to be used as a guide for teachers in formal educational contexts to aid them in teaching key components of historical thinking, and not intended to be used in conjunction with digital media, as it has been applied within this research. The use of this framework, i.e. the application of the guideposts as coding categories for empirical research with games, is a novel methodological contribution in its own right as the framework has not been applied this way in previous research.

However, the change in the context of the framework's use from formal to informal, and applying it to a medium that it was not intended to be used with, may account for the occasionally problematic discrepancies and overlaps between the different guideposts, and may have been a limitation of using the frameworks for this kind of empirical research. That said, this blurring of the boundaries of learning has consequently provided useful insights into the nature of learning in

this informal way, and may in fact be an indication of the ways in which learning is evolving in contemporary society, facilitated by multiple digital media, which in itself is an important finding. With specific reference to Cause and Consequence, Continuity and Change, and the Ethical Dimension themes, not all the guideposts were demonstrated, or were only demonstrated partially. The lack of demonstration of these guideposts does not necessarily mean that the participants would not have an understanding of these aspects if prompted, but the unstructured nature of the diary-interview approach meant that participants were given very participant-specific questions about their experiences with these games. Therefore, whilst these guideposts were not evident in an interview, this may have merely meant that these aspects were not as remarkable or important to the participants as other aspects of their engagement with these games.

Although prompting participants during the course of the interviews may have meant they met more guideposts, this also would have risked leading questions, and multiple associated biases. This may have led to respondent bias, where they answered in ways they thought desirable to the researcher i.e. social desirability bias (Dodou & de Winter, 2014) or even in terms of confirmation bias, where the researcher would use the data to confirm an existing hypothesis or belief (Britannica Online Academic Edition, 2018). In order to uphold the integrity of this study and to minimise the potential of these biases, the final interview questions were open and indirect, allowing participants to discuss their perceptions and the aspects of their engagement that they noted in their diary as relevant or influential. Future research using historical games could investigate more specifically the themes/guideposts that were less evident in this research (i.e. Cause and Consequence, Continuity and Change, Ethical Dimension). This would allow for greater insights into whether engagement with historical games has the potential to engender these particular forms of historical understanding, using different methodological approaches that could provide further illumination on the types of learning occurring through and with these games. What these issues indicate is that perhaps there is scope for a variation or adaptation of Seixas and Morton's (2013) framework, which takes into account the attributes of the game *form* as a

medium for enabling elements of historical understanding, as well as the informal contexts in which these games are most often played, without a teacher to facilitate learning. This is where the findings of this study can be used to aid future researchers, as this thesis has highlighted how games are particularly adept at aiding the learning of Historical Perspective Taking; Historical Significance; and Counterfactual Histories. Therefore, the production of a framework that incorporates these elements in more detail in order to maximise their learning benefits, while simultaneously acknowledging the different ways (with games or otherwise) that the other concepts could be conveyed is a potential avenue for future scholarship in historical game studies. This could then aid informal historical learners to gain a more comprehensive understanding of history through a range of different learning activities that complement and enhance each other.

One methodological component of this study requires further scrutiny: the online diaries. The diaries were included to assess the emergent learning occurring with participants contemporary with their engagements with the games, rather than post-engagement (as with interviews alone). On the one hand, participants' often self-reported learning in their diaries that they would have forgotten before the final interview, had they not recorded it. This means the approach was able to highlight aspects of historical learning that may have not been recorded, had an interview study alone been used. This helped to legitimise this multi-modal data collection approach and its application to historical learning and games. Additionally, the dropout rate of participants was 0% in this research, which can be attributed to a number of factors. These were the use of:

- survey software to provide participants with a daily link to their diaries, increasing the ease which participants could complete them;
- the reminders given to them across a variety of different digital platforms;
- weekly positive feedback given to the participants with reference to their diary entries.

If the 0% dropout rate in this research is compared to the rates for other diary studies, of a minimum of 20% (see 3.7.3), it appears that digitising this approach and the associated follow-up may have drastically aided the retention rate for participants. This said, in studies using greater

numbers of participants, the process used here may be more difficult to implement as it requires a certain amount of effort from the researcher (e.g. sending individual survey links on social media to each participant, each day). Also, these participants had high levels of motivation to play these games and engage with the respective history outside the games. The participant's willingness to participate in this study may indicate that these existing motivations may have naturally transformed into their willingness to complete the study in its entirety, and should thus not be discounted as a factor governing the retention rate.

Participants' asserted that their familiarity with the games they played (and often the historical background in which the games are set) meant that they felt what they could learn from them on a day-to-day basis may have been somewhat limited. Hence, the diary component might not necessarily have reflected the full potential of these games as they might have with a player who has never played them before. In this vein, replicating the current study with participants that have little/no experience with conceptual simulation games would therefore be a fruitful avenue for further research. This may help to indicate to a greater extent, the learning potential that this medium can offer the casual, somewhat naïve, player, rather than the exceedingly motivated – and already particularly knowledgeable (and highly educated, even if not in a historical subject) – participants in this study. The extent of an individual's intrinsic motivation and interest in the subject matter of a game has been shown to be key factor in adult players' learning (Whitton, 2011).

My research has, arguably, included participants who have demonstrated the highest levels of motivation and interest in the subject matter, based upon their own assertions and their respective learning activities with the games. This would appear to suggest then, that players less intrinsically motivated by history would not be able to demonstrate their historical thinking to the same extent as the participants in this research, a factor that must be addressed when considering the pedagogical implications for historical games, especially in formal educational contexts where learning is more 'prescribed' and less self-led. This would also provide a focus for additional research on learning with historical games, i.e. investigating how a player's level of

intrinsic motivation with a game/historical content affects the nature and extent of the learning that takes place with it.

An issue with this however, is one of accessibility. These games are very complex, and require some time to learn *how* to play them, which may provide a barrier to historical learning as this could be frustrating to a less motivated player. Furthermore, these games often require more expensive PCs and hardware (in comparison to a games console) and as we saw in 5.5.4, more technical expertise to play them. Consequently, there are also economic and skill barriers to engaging with these games that some players may have difficulties overcoming.

Some games that could have been explored for research in this area were not included.

Participants in this research largely played complex strategy games, meaning that arguably the most popular genre of games (if based on sales) that tend to favour *realist simulations*, were not adequately investigated here. Given the sheer volume of sales of these games (e.g. *Assassin's Creed*, 2007-present) these types of games are thus an important aspect of how players engage with the ancient past. Different historical arguments can be made by realist simulations, due to their greater focus on narrative and visual representations of the past, and the ways in which they diverge from conceptual simulations. Investigating the players of these types of historical games and their associated learning would thus be a fertile ground for future empirical studies, and would complement the current thesis and advance the field in terms of how we understand the links between gaming and historical learning.

An additional limitation to this study was the gender imbalance of the participants, in that all self-identified as male. I made extra effort during the recruitment process to ensure that other genders were represented in this research. However, this proved difficult as only two self-identified females expressed their interest in participating, from over one hundred self-identified males who completed the survey and were eligible; and despite these efforts, neither of the females chose to participate in the study in full. The gender of players may have no impact on the

types or extent of historical learning taking place with these games per se, though this is nonetheless still open for debate and for further research.

However, it could be suggested that had genders other than male participated, perhaps their online experiences with the games, game forums and social media groups could potentially have been different due to the prevalence of aggressive ideologies in game culture, such as the misogyny previously discussed. So, although the learning occurring through these games may not vary depending on gender, the *experience of learning* for different genders may be markedly different. Research relating specifically to how different genders engage with and interpret historical games still requires further empirical investigation, and would undoubtedly provide new perspectives on how different types of players learn with historical games.

Much data was collected during this research that related to historical learning but not in specific reference to games or play-related activities. As these activities were beyond the scope of the research questions, they were not included in this thesis. This included learning occurring through social media groups, such as Philip's "Ancient Figure of the Day" Facebook group that has over 3000 members, and groups where people discuss traditional Roman re-enacting. Members share resources, engage in debate about practical and theoretical historical issues, and even construct and sell clothing and equipment for traditional historical re-enactment. Although these elements could not be included in this research, the collected data could be used as the basis for future research projects and also for additional publications. Furthermore, this unused data has highlighted the myriad of different ways that players can engage with history facilitated by digital media and resources, in which games are merely one strand of many that contribute to a player's understanding of history.

In a similar vein, although forum interactions were observed where a participant had been explicitly involved, investigating the forums of historical games in their entirety would provide valuable insights into the types of historical discussions occurring amongst players, and how this relates to their experiences with the games. This appears to be an avenue of future work that has

not been fully examined in this thesis in respect to historical learning, and would undoubtedly provide valuable insights into the types of learning occurring through, and due to the nature of, these online communities and environments.

Finally, much has been said about how further research could provide more detail and greater understanding of informal learning with historical games from the perspective of players, such as through investigating player learning experiences with realist simulations, with players of different genders, or different levels of motivation. In-depth textual analyses that perform close-readings of historical games, and the potential that individual games have for representing history, are also fairly numerous. However, with a handful of exceptions (see e.g. Copplestone, 2016), the developer perspectives are rarely considered. This is largely due to the inaccessibility of historical game developers, in that they are difficult to contact and even more difficult to recruit as research participants, often due to the stringent regulations placed upon developers by publishers in terms of their ability to disclose information about games. If researchers were able to gain access to these more inaccessible stakeholder groups, there is the potential not only for collaboration, but for a comprehensive understanding of a game, the authorial/developer intent and player receptions that could move historical games studies forward, particularly for investigating new ways of learning.

7.4. Final Remarks

Once, at a Classical Studies conference, I was conversing informally with another academic. He claimed no new knowledge about the ancient world was being created, as everything that was discussed had already been discussed before, in the thousands of years between antiquity and the present day. He then asked what my area of research was. I informed him that I was carrying out empirical research into player perceptions of antiquity represented in digital games, and I confess that I did take some enjoyment in the silence that followed. This experience led me to think about the role of popular representations of the ancient world, not only to the study of

antiquity as a field, but also to our contemporary understandings of the past and present, through the interrelation between them (Carr, 1961).

Every time the ancient world is represented, rewritten, reworked or remediated in any medium, there are different – and often competing – interpretations about what it means and how it is received, both by historians or academics, but also by the people that engage with these media merely for enjoyment. It is precisely through the construction and reception of fresh, popular conceptualisations of antiquity that the ancient world is kept at the forefront in the present, as a living discourse that constantly updates, affects and reflects what antiquity actually *means* to us. Through these popular depictions of the ancient world, new knowledge and insights into the relevance for and impact of antiquity on contemporary individuals and societies are constantly produced. In other words, new knowledge, perspectives on, and understandings of the classical world are generated every day, directly through people's popular engagements with antiquity.

Often, the reworking of antiquity in popular representations are seen as valuable only because they serve to entice and familiarise prospective students with the ancient world (McDonald, 2008). I would argue that popular representations, for a great number of people, actually determine their expectations and assumptions of what the classical past was like, and more so than any school lesson or textbook. With the rising popularity of digital games that represent this history, it appears that *how* these games represent the ancient world will be increasingly integrated into our conceptualisations of antiquity, and the present. Arguably, historical games are the newest medium for representing the classical past, and like after the release of *Gladiator* in 2000, they too appear to have reinvigorated popular interest in antiquity. With the ancient world finding a growing relevance to new generations through historical games, we will continue to see new ideas, and hopefully new research, about how people engage with, enjoy, and learn from these representations.

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Appendices

Appendix A: Study 1 Survey

1. Are you aged 18 or over? Yes/No
2. Do you play Historical Videogames? Yes/No
3. What genres of historical games do you play? [Select All that apply]
 - Strategy: Real-time; turn based etc.
 - Action: First Person Shooters; 3rd Person games; Action; Action-adventure, etc.
 - Other: Point and click; Platformer, etc.
4. When you play historical games, are you **more likely** to play alone or with other people?
[Select One]
 - With people face-to-face (co-located)
 - With people online
 - Alone and with people (face-to-face or online) equally
 - Don't know
5. After you have played historical games, have you ever talked to anyone about the game itself and/or the historical content, either face-to-face or online (i.e. on social media, forums etc.)? [Select One]
 - Yes: I've talked about the game.
 - Yes: I've talked about the historical content.
 - Yes: I've talked about both.
 - No: I haven't talked about either.
 - Don't know.

6. How much do you agree with the following Statements?

Statement	Alignment				
6.1. One of the main reasons I play Historical Games is to learn about History	Agree	Somewhat Agree	Somewhat Disagree	Disagree	I do not want to answer
6.2. I have learnt something about history through playing historical games					
6.3. I have decided to play a historical game because I read a book or story with similar historical content.					
6.4. When I play historical games, I am more likely to engage with other media (e.g. TV, film) with similar historical content.					
6.5. When I play historical games, I will often take part in online activities that relate to the historical content (e.g post on forums or social media).					

7. What specific historical games do you/have you played the most? Why?

- [Free text]

8. Do you watch historical films or TV shows? (**Fictional**, i.e. **NOT DOCUMENTARIES**)

Yes/No

9. When you watch historical TV or films (NOT DOCUMENTARIES), are you **more likely** to watch alone or with other people? [Select One]

- Alone
- With people
- Alone and with people equally
- Don't Know

10. **After** you have watched an historical film or TV show (NOT DOCUMENTARIES), have you ever talked to anyone about the show/film and/or the historical content, either face to face or online? [Select One]

- Yes: I've talked about the show/film
- Yes: I've talked about the historical content.
- Yes: I've talked about the show/film AND the historical content.
- No, I haven't talked about either.
- Don't know.

11. How much do you agree with the following Statements?

Statement	Alignment				
11.1. One of the main reasons I watch Historical film/TV is to learn about History	Agree	Somewhat Agree	Somewhat Disagree	Disagree	I do not want to answer
11.2. I have learnt something about history through watching historical TV/film					
11.3. I have decided to watch a historical film/TV show because I read a book or story with similar historical content.					
11.4. When I watch historical film/TV, I am more likely to read books or play videogames with similar historical content.					
11.5. When I watch historical TV or films, , I will often take part in online activities that relate to the historical content (e.g post on forums or social media).					

12. What specific historical TV shows or films (NOT DOCUMENTARIES) do you/have you watched the most? Why?

- [Free text]

13. How authentic/realistic are the historical representations in each of the media forms, in your opinion?

Medium	Alignment				
Video Games	Authentic	Somewhat Authentic	Somewhat Inauthentic	Inauthentic	I do not partake in this medium
Feature Length Film (not documentaries)					
TV series (not documentaries)					

14. Can you think of a specific historical film (e.g. *Apocalypse Now*; *Gladiator* etc.), TV show (e.g. *The Last Kingdom*, *Vikings*, *Downton Abbey* etc.) or videogame (e.g. *Assassin's Creed*, *Total War*, *Wolfenstein* etc.) that is **highly authentic**? Why?

- [Free Text]

15. Can you think of a specific historical film (e.g. *Apocalypse Now*; *Gladiator* etc.), TV show (e.g. *The Last Kingdom*, *Vikings*, *Downton Abbey* etc.) or videogame (e.g. *Assassin's Creed*, *Total War*, *Wolfenstein* etc.) that is **highly inauthentic**? Why?

- [Free Text]

16. Would you be interested in finding out the results of this survey and how the research develops? If so, please enter your email address. If not, please select "Next". [Email addresses will be used **strictly for this research** and not passed on to 3rd parties.] [Free Text]

17.1. What is your age? [Select One]

- 18-29
- 30-39
- 40-49
- 50+
- Prefer not to say.

17.2. What is your gender? [Select One]

- Male
- Female
- Other
- Prefer not to say.

17.3. What is your nationality? [Drop-down list]

18. What is your occupation? [Select One]

- Student
- Academic
- Professional/Other Occupation
- Other [Please specify]

18a. What is your academic field/discipline/occupation/occupational area?

19. In an average month, how often do you play digital games of any kind?

- I don't play games
- Daily
- Several times a week

- Weekly
- Several times a month
- Once a month
- Less than once a month
- Prefer not to say
- Don't know

19a. How long does an average gaming session last?

- N/A
- ½ hour
- 1 hour
- 2 hours
- 3 hours
- 4 hours
- 5 hours
- Over 5 hours
- Prefer not to say
- Don't Know.

19.1. In an average month, how often do you watch films or TV **of any kind**?

- I don't watch TV or films
- Daily
- Several times a week
- Weekly
- Several times a month
- Once a month
- Less than once a month

- Prefer not to say
- Don't know

19.1a. How long does an average viewing session last?

- N/A
- ½ hour
- 1 hour
- 2 hours
- 3 hours
- 4 hours
- 5 hours
- Over 5 hours
- Prefer not to say
- Don't Know.

20. In an average month, how often are you online for **any reason**?

- Daily
- Several times a week
- Weekly
- Several times a month
- Once a month
- Less than once a month
- Prefer not to say
- Don't know

20a. On average, how long are you online for?

- N/A
- ½ hour

Appendices

- 1 hour
- 2 hours
- 3 hours
- 4 hours
- 5 hours
- Over 5 hours
- Prefer not to say
- Don't Know.

Appendix B: Study 2 Recruitment Survey

1. What game (or variant of that game, e.g. expansions) that represents ancient Rome do you currently **play the most**? [Select One]
 - Rome: Total War
 - Total War: Rome 2
 - Total War: Attila
 - Ryse: Son of Rome
 - Rome: Total Realism
 - Crusader Kings II: Legacy of Rome
 - Europa Universalis: Rome
 - I play some of the above games equally so I couldn't pick just one.
 - None
 - Other [Please specify]

2. Do you **regularly** use online sites (e.g. forums, wikis, walkthroughs, YouTube, etc.) relating to the games you play that represent ancient Rome, for any reason? [Select One]
 - Often
 - Sometimes
 - Never

3. Do you **regularly** post or contribute content to sites or online communities about the games you play relating to ancient Rome? [Select One]
 - Often
 - Sometimes
 - Never

4. Do you **regularly** write about your game experiences after playing and post your writing online, e.g. as an After-Action Report (AAR)? [Select One]

- Often
- Sometimes
- Never

5. Do you **regularly** produce Mods (modifications) of game content for use within games that represent ancient Rome? [Select One]

- Often
- Sometimes
- Never

6. Do you **regularly** create videos about your gameplay experiences with games that represent ancient Rome, such as After-Action Reports (AARs) or LetsPlay videos? [Select One]

- Often
- Sometimes
- Never

7. Name [Free Text]

7a. Age [Select One]

- 18-24

- 25-34
- 35-44
- 45-54
- 55-64
- 65+

7b. Email Address [Free Text]

7c. Gender Identification [Select One]

- Female
- Male
- Gender variant/Non-conforming
- Prefer not to say

7d. How would you describe yourself as a gamer? [Select One]

- Casual
- Moderate
- Hardcore
- I wouldn't describe myself as a gamer

7e. On average, how often per week do you play games that represent ancient Rome?

[Select One]

- Daily
- 5-6 times per week
- 3-4 times per week
- 1-2 times per week
- Less than once a week

7f. Do you have a formal qualification in a subject that relates to ancient Rome (e.g. Classical Studies, Ancient History, Latin etc.). Yes/No

7fi. If 'Yes', Please state the level of the qualification

- GCSE (or international equivalent c. aged 16 years)
- A-Level (or international equivalent c. 18 years)
- Undergraduate Degree
- Postgraduate Degree

7fii. In what subject? [Free Text]

Daily Diary

Page 1: Questions

This diary's purpose is to keep track of your gaming, game-related and learning activities. You can provide as little or as much information as you like, but do try and record as many activities as possible. For extra guidance, for some questions there is the option to get "More Info".

The survey link is individual and unique to you and password protected, so there is no need for you to provide personal details beyond the questions that are asked.

Please remember to:

- **Fill in the Diary every day**
- **Answer all questions**

As always, if you have any questions, don't hesitate to contact Sian:
sian.beavers@open.ac.uk

1. Did you play any games about ancient Rome today? * *Required*

- Yes
 No

1.a. *I'd be interested in things like what you played, when you played, for how long, how far you got, if you played with anyone else.*

1 / 5

1.b. *If not, was there a particular reason why you didn't?*

[+ More info](#)

2. **Did you talk to anyone about ancient Rome, or about games that represent ancient Rome today?** * *Required*

- Yes
- No

2.a. *I would like to know about who you talked to, what you talked about and whether this was in person or online etc. If it was online and public, please provide a link to the discussion/post – if it was a private discussion any details about it that you are willing to share.*

3. **Did you use any kind of resource or view other media (e.g. TV, film etc.) that relate to ancient Rome generally, or games that represent ancient Rome?** * *Required*

[+ More info](#)

- Yes
- No

3.a. Please try and give examples. What did you use and why?

4. Did you contribute to, or create, anything related to ancient Rome, or games that represent ancient Rome? * Required

+ More info

- Yes
- No

4.a. Please try and give examples. What, why, and how did you contribute or create? If it was online and public (e.g. a forum thread, After-Action Report, Mod, etc.) please provide the link to the site or post

5. Do you think you have learnt anything today? * Required

+ More info

- Yes
- No

5.a. Please try and elaborate, giving examples of what you have learned.

6. Is there anything else you would like to mention that you think might be relevant to the study? * *Required*

[+ More info](#)

- Yes
- No

6.a. Please state below.

Appendix D. Links to Producer Participant's Mods, AARs and YouTube Channels.

AARS

Alwyn. *Andraste's Children*, [http://www.twcenter.net/forums/showthread.php?706204-Andraste-s-Children-\(Iceni-AAR\)-updated-November-26-2017](http://www.twcenter.net/forums/showthread.php?706204-Andraste-s-Children-(Iceni-AAR)-updated-November-26-2017)

The Govna, *Restoration of Epirus*, <https://www.twcenter.net/forums/showthread.php?746760-The-Restoration-of-Epirus-DEI-Campaign-AAR/page2>

Redslayer, *The Rise of the Roman Empire*
[http://www.twcenter.net/forums/showthread.php?747717-The-Rise-of-the-Roman-Empire-\(my-first-AAR\)](http://www.twcenter.net/forums/showthread.php?747717-The-Rise-of-the-Roman-Empire-(my-first-AAR))

Mods

Leonardo the Great, Imperial Legions of Rome mod.
<http://www.twcenter.net/forums/showthread.php?672966-IMPERIAL-LEGIONS-OF-ROME>

Sebidee: Unit Roster Overhaul <https://www.twcenter.net/forums/showthread.php?662606-Sebidee-s-Unit-Roster-Overhaul&highlight=Sebidee>

Sebidee's Iceni roster expansion <https://www.twcenter.net/forums/showthread.php?658395-Rome-II-Sebidee-s-Iceni-Roster-Expansion&highlight=Sebidee>

Stealth 4 Health, Casus Belli mod <https://www.twcenter.net/forums/showthread.php?712324-Total-War-ATTILA-Casus-Belli-Mod-Pack>

Model Resource pack: <https://www.twcenter.net/forums/showthread.php?751128-Model-Resource-Packs&p=15425587&highlight=#post15425587>

Sir Alfthons: Rome II Units Supermod <http://www.twcenter.net/forums/showthread.php?737074-Rome-II-Units-super-mod&p=15177713&highlight=#post15177713>

LetsPlays

Letsplays: Legend of Total War Youtube channel.
<https://www.youtube.com/user/LegendofTotalWar>