PLAYING AND MAKING HISTORY: HOW GAME DESIGN AND GAMEPLAY AFFORD OPPORTUNITIES FOR A CRITICAL ENGAGEMENT WITH THE PAST

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Abstract

For decades there has been a call for educators to explore new possibilities for meeting educational goals defined broadly under a number of 'twenty-first century competencies' curricula (Dede, 2014; Voogt et al., 2013). These stress the need for students to combine critical skills development with an understanding of the processes and reach of technologies in daily life, in order to prepare them for a shifting cultural and economic landscape. In response, an extensive literature has grown up about game-based learning (Brown, 2008; de Castell, 2011; Gee, 2003; Gee and Hayes, 2011; Jenson, Taylor, de Castell, 2011; Jenson et al., 2016; Kafai, 1995; 2012; 2016; Prensky, 2001; Squire, 2004; 2011; Steinkuehler, 2006) that seeks to explore whether/how games can be used productively in education. History as a discipline lends itself particularly well to game-based learning. It is bound up in questions of interpretation, agency, and choice, considerations that gameplay and game design as processes highlight well. My research explores the uses of digital historical games in history education, and most especially in the acquisition of critical historical skills. These skills are defined as the capacity to view and engage with the constitutive parts of historical scholarship and objects: interpretation, argument, evidence, ideology, subject position, class, race, sex, etc. This thesis will present findings from two participant-based research studies that I organized and ran between 2018 and 2019. In the first, participants were tasked with playing a counterfactual historical game, *Fallout 4*, and talking about their experiences, as well as answering questions about history and historical understandings. The second study took the form of an interactive digital history course. In it, students, working in small groups, were tasked with creating their own historical games. Exploring both gameplay and game production answers the call issued by Kafai and

Burke (2016) that researchers should view the potential for games in education holistically, rather than in either/or terms. Taken together, this thesis argues that playing and *especially* making historical games offers opportunities for learners to engage with epistemological concepts in history in meaningful ways that can advance their critical understanding of history as a subject.

Dedication

To my parents,

Because they wouldn't allow me to quit on myself,

And always knew just what to say when I most needed encouragement,

And to April,

Whose courage and compassionate spirit inspire me always to be better.

Acknowledgements

This project would not have been possible without the extraordinary kindness, patience, and support of my supervisor, Dr. Jen Jenson, throughout the last 5+ years. I entered my PhD with little direction or background in the area I wanted to research in, and she never wavered in providing guidance when I needed it, and doses of reality when I least wanted to hear them. Beyond this project, Jen offered countless opportunities to get experience doing research and to explore the field so I could find the area that spoke the most to my interests. The completion of this dissertation owes its largest debt to her, and I am grateful to have had her as my supervisor.

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Chapter One: Introduction

Background

When I initially began my PhD research, my original intention was to perform an ethnographic analysis of the MMO game *World of Warcraft* and explore how interaction with and within this virtual world leads to productive learning experiences effectively *incidentally*. This idea, as I think is evident, did not leave the stages of earliest planning, but it speaks well to a longstanding interest in the capacity for digital games to teach, often even without a directive to learn. Some digital games are powerfully engaging and immersive, which certainly explains why they so often invoke the ire and envy of educators trying to work with students who have grown up in a world where they have always known the possibilities of play in this way. It is unsurprising that classrooms and educators – across the spectrum from early education to college – so often still deeply linked to their Imperial methods and heritage, fail to grab the attention of learners in the way that other digital services available to them, be it games, social media, or simply the internet writ large, can and do. I do not think it is controversial to say that, at least in the context of the educational system in which I have spent my life (Ontario), the challenge of meeting the demands of a changing world, and of effectively integrating emerging technologies and literacies into the curriculum in order to properly equip learners for that world (where they will soon by charged with participating in as individuals, as workers, and as citizens) continues to impose a considerable strain on the educational system. Our continued reliance on a philosophy of education that maintains a stubborn loyalty to the notion that instructors instruct and learners learn – by which we most often mean memorize and repeat later – increases the risk that generations of students will leave education without the

necessary knowledge to engage meaningfully with the world around them, one that is predominantly defined by relations and mediations of the digital and of technologies.

This concern is not unique, or new, but comes from a much larger clarion call of educators, scholars and researchers (see for example Dede, 2014; Choontanom & Nardi, 2012; Gee & Hayes, 2011; Squire, 2011; Steinkuehler, Squire, & Barab, 2012; Voogt et al., 2013) all warning that our educational system is not meeting the needs of students, and perhaps has never done so but for a few among them. This has been made especially acute in the last few decades, because the imposition of emerging media and technologies has so profoundly reshaped the sociocultural world that it is now effectively impossible to navigate it without reference to them. This generates a need for individuals to be able to engage productively with these technologies and digital media, and that implies an education that includes a focus on the development of critical skills and literacies which are necessary to do so. But there is a more basic consideration as well, one often stated but rarely appreciated: *we cannot teach students using antiquated tools and methods and expect positive engagement or meaningful outcomes*. Teaching *must* change, because learners have changed, and their world has changed and is changing. The information-transmission model has long outlived any possible general utility it had in education, and it must be reimagined if we are going to begin addressing the needs of learners now in the twenty-first century. There is no single effective alternative, but there is an enormous wealth of research spanning decades which has attempted to refigure, rethink, and reimagine education and learning, and all of it has something worthwhile to say about the stakes of the problem education faces, and the possibilities that exist for something different.

The research found in this dissertation seeks to be a part of the scholarly debate regarding what education *can be*, if only in a small way. I seek to join the conversation which now extends several decades regarding the potential for digital games to serve as sites of learning, and as resources in educational settings. To this end, my research contributes to ongoing scholarship in game studies and education regarding the possibilities for playing and making games for learning. I owe the possibilities for this research to these earlier scholars, and I hope as well to contribute to this conversation, and to provide evidence for the positive capacity of games in education, and in particular for history education. I am also indebted to all those scholars, philosophers, and historians who, largely since the mid-twentieth century, have interrogated the discipline of history and demanded accountability from its practitioners that its longstanding empiricist-objectivist bent had ignored. This critical discourse about what history is, and what historians do, has dislodged the subject of history from its pseudo-scientific aspirations and placed it firmly within the realm of language, culture, identity, and ideology. It has highlighted the importance of understanding not simply the content of history, but the machinations of its production and interpretation by the historian. It has wrested history from *the past* and established a chasm between them that can only be crossed haphazardly, with care, and with full acknowledgement that the stories we tell about the past are just as much the product of its traces left behind as they are the narrative invention of its author.

The discipline of history has responded to the encroachment of 'post-modernism,' and its cognate branch of historical theory and philosophy unevenly, but this post-modernist critique of the discipline has helpfully revealed a crucial lesson for history education moving forward. That is, that this education must attend not just to the events of the past, but to the

composition of them, their representation and enactment, to the figure of the historian, to the elements of historical production. This other category of concerns, assembled together into what I refer to as *critical historical skills*[1], are what effectively allow the learner to engage with the products of history, and with the past, in a meaningful, critical, and productive way. Bad historical monographs exist, as do bad historical curations, and comics, television shows/documentaries, films, news stories etc. In every medium, history is mobilized in positive and insidious ways. A reflexive understanding of what history is, how it is done, what it consists of, matters greatly. This is especially true given the incredible profusion of popular histories in the digital age. As much as the academic historian may shudder the thought, control over the story of history belongs firmly in its popular presentation and in cultural memory, not in the academic text. This makes it even more important that the individual, in their brief interactions with history in public education, is taught these critical historical skills, so that they can recognize historical interpretation and argument, the imposition of authorship, the choices in evidence selection, in subject matter, its ideological bent, and its presentist concerns.

Statement of the Problem

What role can digital historical games play in the development of these critical skills? Much of the research on digital historical games has traditionally consisted of textual analysis (Chapman, 2016; Galloway, 2006; De Groot, 2006; 2016; Hess, 2007; Kapell and Elliot, 2013; Koski, 2017; MacCallum-Stewart & Parsler, 2007; Potzsch & Sisler 2019; Rejack, 2007; Robison,

[1] While not exactly the same, this framing of history shares similarities with the work of scholars like Peter Seixas (2000; 2004; 2013; 2017) and Sam Wineburg (1991; 2001) among many others. Seixas' 'historical thinking concepts' in particular, generated in conversation with other perspectives from America, Germany, and the UK, have exercised considerable influence over the Ontario history curriculum (2018, revised edition). My framing extends these second order concepts to include a critical concern with historiography and historical theory, in order to account for the ideological and epistemological positioning of history as a subject.

2013; Schut, 2007; Urrichio, 2005) rather than empirical, participant-based studies. These analyses normally conclude with some speculation regarding the potential for these games in learning about history, but they fail to offer concrete insight or advice for educators, and often actively caution against using games given their status as non-academic historical media. While participant-based research on historical games is growing (Fisher, 2011; Gilbert, 2019; Graham, 2014; Hiriart, 2019; Karsenti, 2019; McCall, 2014; 2016; Squire, 2004; Wainwright, 2014; Watson, Mong, and Harris, 2011) there remains much work to be done in investigating the potential for historical games to assist in the development of critical historical skills (addressed directly here only by Wainwright, Graham, and Gilbert). Even more pronounced, there remains a paucity of research that explores *making historical games* as a means of acquiring and strengthening historical skills. In response, my research seeks to engage directly with questions regarding how a certain genre of historical game – defined separately by Kee (2012) and Metzger and Paxton (2016) as a 'critical' or 'postmodern' game – can provide opportunities for players to engage critically with the past and consider historical interpretation and knowledge production as well as the processes which underlie historical making. And in addition, it seeks to explore the potential for this form of engagement/questioning to unfold via the process of making an historical game.

My research plumbs the potential uses of digital historical games in education, and most especially in the acquisition of critical historical skills. In so doing, it seeks to participate in the conversation regarding the possibilities for games in learning that remains ongoing in game studies scholarship, and offer insight specifically into the potential uses for history games in history education. These skills are defined broadly as the capacity to view and engage with the

constitutive parts of historical scholarship and objects: interpretation, argument, evidence, ideology, subject position, class, race, sex, and so on. This thesis will present findings from two participant-based research studies that I organized and ran between 2018 and 2019. In the first, participants were tasked with playing a critical and counterfactual historical game, *Fallout 4*, and talking about their experiences, as well as answering questions about history and historical understandings. The second study took the form of an interactive digital history course. In it, students, working in small groups, were tasked with creating their own original historical game. Both research projects are framed around three central questions, that inform the scope of this work: **1) How do historical games activate/represent history and reveal insights about the processes that underlie historical making and knowledge building? 2) What knowledge/skills, if any, do learners acquire by playing and making historical games? 3) What represents best practices for deploying historical games in educational settings?** Exploring both gameplay and game production answers the call issued by Kafai and Burke (2016) that researchers should view the potential for games in education holistically, rather than in either/or terms. Taken together, this research argues that playing and *especially* making historical games offers opportunities for learners to engage with critical concepts in history in meaningful ways that can advance their critical understanding of history as a subject.

Theoretical Framework

This research is informed by a postmodern historical approach that challenges conventional methodological and theoretical frameworks by interrogating the subject and object of historical inquiry. These historians (i.e. Foucault, 1972; 1995; Jenkins, 1991; Scott, 1988; White, 1973) challenge the dogmatic status of empirical historical studies and their

traditional tendency towards linear explication of historical events. In contrast, these scholars embrace the very ambiguities that the historical discipline had traditionally sought to stamp out. In their critique of the longstanding disciplinary adage to investigate the past "on its own terms," these scholars deny the possibility of objective and apolitical intervention into the past. For example, rather than produce a history of the penal system and the forms of punishment that it gave (and gives) shape to, Foucault takes *power* as his of object inquiry in *Discipline and Punish*; power that is shaped by institutional pressures, different expressions of agency, ideology, and culture, and expressed via punitive actions on the body (Foucault, 1995, 25-26). This is not an empiricist study of the history of crime, it is an investigation of the logics of criminal discourse, how they are produced and enacted. The postmodern approach introduced by scholars like Foucault (and many others) seeks to interrogate rather than reify the supposed links between disconnected events that make them appear unified or fixed, and therefore that make history appear as a tidy narrative. It challenges any notion of singular causality or linear succession which for so long the dominant branches of historical production (empiricist, nationalist) have been guilty of. It is interested instead in the tensions that exist within the production of history as a discourse; the making of knowledge(s) of the past as a way of establishing relations of power, as Keith Jenkins argues in *Re-thinking History*: "the fact that history *per se* is an ideological construct means that it is constantly being re-worked and re-ordered by all those who are variously affected by power relationships; because the dominant as well as the dominated also have their versions of the past to legitimate their practice" (Jenkins, 1991, 17).

Just as it is impossible to remove history from its context and still investigate it as history, it is equally impossible to divorce historical work from its author and therefore from some form of ideological positioning, because, as Jenkins points out, “history is never for itself; it is always for someone” (Jenkins, 1991, 17). Instead, Jenkins argues for honesty and transparency on the part of the writer of history, calling on them to practice a ‘critical reflexivity,’ or a kind of self-awareness of both their position as unique subjects working in history and of the discipline of history as ideologically bound (Jenkins, 1991, 57). And in fact, decades before Jenkin’s call for reflexivity, Hayden White (1973) had forcefully argued that history can not escape the historian’s vision, that it must be acknowledged and accounted for, and this was simply the honest way to do history, not its demise:

> I treat historical work as what it most manifestly is: a verbal structure of a narrative prose discourse. Histories (and philosophies of history as well) combine a certain amount of ‘data,’ theoretical concepts for ‘explaining’ these data, and a narrative structure for their presentation as an icon of sets of events presumed to have occurred in times past (White, 1973, ix).

As White goes on to argue, his aim is hardly to denounce the *doing* of history or undermine the value of historical analysis, but rather to indicate “how ideological considerations enter into the historian’s attempts to explain the historical field,” and “to construct a verbal model of its processes in a narrative,” (White, 1973, 26). The admission of subjectivity, then, is not to reveal an inescapable relativism, but to acknowledge that ideology shapes all discourse, including historical theory and methodology. This does not doom historical inquiry. Rather, it changes its trajectory, away from fantasies of positivist or objectivist linearity and towards understanding

why, in the present, the conditions of power and knowledge are as they are, by examining the processes of their making. That is, their *genealogy*. Any history, whatever its direction, will inevitably be a history *of the present*, being as it is a product of a particular subjectivity (and its subsequent positionalities) that exists in the present.

To admit this is not to deny the possibility of historical analysis, but to acknowledge how that analysis will always be shaped by understandings (discourses, ideologies) foreign to the past it seeks to examine. My research sought to provide participants with an opportunity to consider history in this way by having them play a counterfactual game that immediately positions itself as a critique of conventional historical understanding. *Fallout 4* pokes fun at simplistic and generalized readings of the Cold War period in a playful way (by presenting a post-apocalyptic landscape that satirizes America's image as a consumerist paradise), but at the same time it raises the spectre of more meaningful questions that can be asked about history as a discourse and a discipline. In addition, the game creation project I conducted at Carleton University was explicitly outlined and positioned as an opportunity for the students to think about the processes that underlie historical making and knowledge building, and to grapple with the questions that are raised by putting them in the position of producers, rather than consumers of historical content. In both projects, then, an engagement with the critical components/questions of history was at the core of what participants were being asked to do. Confronting these generates the distinction between learners and practitioners that are capable of meaningfully engaging with history and its objects and those that passively consume them, at the risk of manipulation, misinformation, or worse.

This research is also informed by scholarship which seeks to radically reimagine what learning is and how it takes place. I view these projects as an attempt to participate in this conversation, and to reconsider the possibilities for teaching and learning history, especially *critical* history. My thinking about learning is deeply influenced by the work of Lave and Wenger (1991) and Ranciere (1991). While they differ fundamentally regarding the role of the master (educator, mentor, tutor) both share a deep concern for the equality of the learner, and their capacity to acquire mastery of skills if given the chance to do so. In addition, both lament the status of conventional, curricular education and its perpetuation of a cycle that forecloses rather than generates opportunities for the development of expertise. For Lave and Wenger, this has to do primarily with the practice of sequestering learners in schools and the formation of a distinction between forms of knowledge: "an important point about such sequestering when it is institutionalized is that it encourages a folk epistemology of dichotomies, for instance between 'abstract' and 'concrete' knowledge" (Lave and Wenger, 1991, 104). In reality, these distinctions do not exist, since learning as outlined by *legitimate peripheral participation* (the core learning philosophy outlined in the text) is defined as a generative movement from periphery to center that is taking place regardless of context (Lave and Wenger, 1991 33, 40). The effect, though, in the formation of this distinction that takes place in environments of sequestration like schools, is that learners come to believe that there is a level of participation which they are not ready for, and once they are, an additional level immediately appears to replace the former, which they are again not yet ready for. Ranciere targets this cycle in his own work on the pedagogy of Jacotot and the ignorant schoolmaster explicitly:

> To explain something to someone is first of all to show him he cannot understand it by himself. Before being the act of the pedagogue, explication is the myth of pedagogy, the parable of a world divided into knowing minds and ignorant ones, ripe minds and immature ones, the capable and the incapable, the intelligent and the stupid (Ranciere, 1991, 6).

The effect, again, is what Ranciere calls a *stultification* where the learners intellect is permanently subordinated to the teacher or masters, and thus can never gain its own equality, independence, or expertise. In conventional education, as Ranciere explains, "we learn rules and elements, then apply them to some chosen reading passages, and then do some exercises based on the acquired rudiments," and these "fragments add up, detached pieces of the explicators knowledge that put the student on the trail, following a master with whom he will never catch up" (Ranciere, 1991, 21). Put simply, the failure of teaching is the invention of a pedagogy that assumes an inequality between teachers and learners that must be gradually eroded over time, because this creates the very conditions that generates the division of intellects in the first place. For Lave and Wenger the sequestration of the school creates artificial barriers to entry into forms of legitimate peripheral participation, while for Ranciere it establishes a power dynamic that becomes the means of its own reification. In both cases it is the learner who suffers.

What they offer as an alternative is where the distinction between these authors becomes most evident. Specifically, Lave and Wenger continue to believe in a role for the educator, mentor, tutor, expert etc. while Ranciere advocates for the eradication of this figure in learning, or at least their abdication of any pretense towards mastery defined as the gradual

building of expertise through methods of explication. For Lave and Wenger, legitimate peripheral participation (LPP) is less a pedagogical perspective and more a theory of learning that is intended to be universal and total; that is, "learning through legitimate peripheral participation takes place no matter which educational form provides a context for learning, or whether there is any intentional educational form at all" (Lave and Wenger, 1991, 40). The motivation for their work, then, is not to provide educators with pedagogical insight so much as to reveal that this is how learning is going to take place regardless of the context, and what is determinable is only whether masters will impede this process (by constructing artificial boundaries that delimit LPP) or not. Understanding that LPP "provides a way to speak about the relations between newcomers and old-timers, and about activities, identities, artifacts, and communities of knowledge and practice," and therefore that it is a deeply social practice involving the whole person as they move towards full participation within these communities of practice, one useful way to think about the impact the school model can have on this process is in their discussion of teaching curricula and learning curricula (Lave and Wenger, 1991, 29). According to Lave and Wenger, "a learning curriculum is a field of learning resources in everyday practice *viewed from the perspective of learners*," whereas "a teaching curriculum, by contrast, is constructed for the instruction of newcomers," and "when a teaching curriculum supplies – and thereby limits – structuring resources for learning, the meaning of what is learned is mediated through an instructor's participation, by an external view of what knowing is about" (Lave and Wenger, 1991, 97). The learning curriculum does not eradicate mentors or masters, rather it "decenters" them and produces an understanding that "mastery resides not in the master but in the organization of the community of practice of which the master is a

part" (Lave and Wenger, 1991, 94). Individual co-participation in communities of practice still includes engagement with mentors and with other apprentices, but it refigures the master/subordinate dynamic within the matrix of social relations that define LPP and the movement towards full participation.

For Ranciere the solution to the problem produced by pedagogy is the elevation of the will to learn and an admission of the universal equality of intelligence. Ranciere explains this process by relating the story of Jacotot, and his success in getting his students to read a book in a language he could not read himself in order to teach them French, which they did not know but wanted to learn (thus, the ignorant schoolmaster). What matters about this positioning, of the master and the learner, for Ranciere, is that the success of the experiment revealed something much more profound for him than the notion of learning language from a dually translated book. "The fact was," argues Ranciere, "that his students *had learned* to speak and write in French without the aid of explication. He had communicated nothing to them about his science" but "without thinking about it, he had made them discover this thing that he discovered with them: that all sentences, and consequently all the intelligences that produce them, are of the same nature" (Ranciere, 1991, 9). What this means, is that "there is nothing beyond texts except the *will* to express, that is, to translate" and the crucial term in that point is *will*. The students, native Flemish speakers, wanted to learn French, and Jacotot was unable to position himself as the master of Flemish, because he did not know the language. All he could do was provide them with a text in the language they did speak (Flemish) and containing a translation to the language they wished to learn (French) and believe that they could complete

the work. Importantly, however, is that Jacotot's ignorance of the subject was essential to the learning that took place:

> The students had learned without a master explicator, but not, for all that, without a master. They didn't know how before, and now they knew how. Therefore, Jacotot had taught them something. And yet he communicated nothing to them of his science. So, it wasn't the master's science that the students had learned. His mastery lay in the command that had enclosed the students in a closed circle from which they alone could break out. By leaving his intelligence out of the picture, he had allowed their intelligence to grapple with that of the book (Ranciere, 1991, 13).

Consider Ranciere's core argument, that the invention of a pedagogy centering upon the gradual acquisition of mastery and subsequent erosion of ignorance produces a chasm that can never be crossed. In this system the master is always the master, the student is always the student. What worked for Jacotot was precisely the fact that *he could not be the master* of that which the students wished to learn, because he did not know it. All that was left to them was their will, and a recognition of their capacity to learn themselves offered by Jacotot.

In this pedagogy, the master (educator, mentor) retreats from the center (if not entirely), and the learner is not subject to a cycle of knowledge that can never be completed because it relies solely on what the master constitutes knowledge as. Ranciere summarizes this re-conception of learning in the following way:

> One can teach what one doesn't know if the student is emancipated, that is to say, if he is obliged to use his own intelligence. The master is he who encloses intelligence in an arbitrary circle from which it can only break out by becoming necessary to itself. To

> emancipate an ignorant person, one must be, and one need only be, emancipated oneself, that is to say, conscious of the true power of the human mind. The ignorant person will learn by himself what the master doesn't know if the master believes he can and obliges him to realize his capacity (Ranciere, 1991, 15).

What works against the learner for Ranciere is similar to what works against the learner of Lave and Wenger: an artificially constructed system of constraints that limits the possibilities for learning because it demands that knowledge and expertise be accrued gradually, with a slow movement from ignorance to mastery. But in the very definition of this process comes the means of its reification and its need to subsume the actual activities of learning. There always must be an instructor, there always must be students, and there always must be a gulf that separates one from the other. I do not think that these two perspectives offer the only way of reimaging learning or this relationship between learner and educator more generally, but they certainly do reveal the core of the problem with education as it is most often presently conceived and constructed.

Postmodern History and Learning Theory in this Research

Having students work with digital games, through play and through design, represents another attempt to rethink and refigure what it means to learn and to teach. In creating these projects, I was also seeking ways of breaking this cycle of expertise, and of encouraging students to ask *their own questions* about the work they were doing, and about what it might be saying to them regarding the past and history. *Fallout 4* is a counterfactual historical game. Questions about what history is and what stories it tells are inhered in the game setting and narrative. I wanted participants in that study to be exposed to this kind of history so that it

would raise questions for them regarding what they think about past, and their considerations of how history comes to us in the forms that it does. I engaged with them in conversations about the game, and about what counterfactual history is, and I provided them with the means (in the form of the travelogue) to record their own insights and observations. Learning from play was intended to be participatory; their engagement with this virtual and counterfactual historical space would, or at least could, provide opportunities to question history in a real and thoughtful way. In the case of project that I undertook at Carleton, I was in a direct way very much the ignorant schoolmaster. I have knowledge of digital history certainly, and of critical historiography as well, but I know next to nothing about technical design. I cannot code, nor can I navigate the software that I had the students use in their work. In this regard, they were very much *left to rely on themselves, and each other*, rather than on me. I intentionally did not provide tutorials on using the software, or on game design generally. It was and is my belief that approaching their work without this scaffolding would more accurately reflect the conditions of the historian approaching their craft. It was my hope that when they encountered problems, these would encourage them to ask questions about what they were doing, and what it meant to their production of a history. As a consequence, perhaps, they would extrapolate from that a series of questions that are worth asking *about all of the history we encounter*, related to the processes of its making and dissemination. I will leave much of what the data said to the chapter dedicated to this project, but their actual games far and away exceeded any expectations I had for them. They very much did learn to use the software, to design and produce thoughtful, interesting, engaging and insightful historical games. Neither one of these projects is intended of as a total endorsement of the positions taken by Lave and

Wenger, or by Ranciere, but they are both examples of what is possible when the conventional models of learning and education are challenged. I believe they contribute to a broader conversation that seeks to positively interject into debates about education and learning and offer alternative ways of conceiving of both.

Chapter Summaries

Chapter 2 introduces the key scholarship that has informed this research. It comes from three areas: game-based learning, learning-by-design/game production, and historical game studies. All three categories are specific areas of research that are contained under the umbrella of the field of game studies. It begins with an introduction into game-based learning that includes its origins as an area of study with the work of scholars like Prensky (2001) and Gee (2003), its core principles, how it situates itself within a broader literature on education and pedagogy in the twenty-first century, along with some of the earlier and more recent approaches to GBL and accompanying research into its effectiveness and efficacy as a pedagogical approach. Next, it outlines literature that shares a particular concern within game-based learning for game design and production as an activity to foster learning and develop many of the core competencies introduced in the previous section. This section introduces this sub-topic of GBL scholarship and zeroes in on constructionist approaches, as well as critiques of these approaches raised by others working in game production and the call for a reformulation away from strictly constructionst perspectives, advocating instead for a "production pedagogy" (de Castell, 2011; Thumlert, de Castell, and Jenson, 2015; 2018). This perspective is, as the authors argue, more actively situated for meeting the needs of learners (and being cognisant of the contexts *they bring with them* to the design process) and weary of the tendency for

neoliberal education policy to subsume novel attempts at learning under the banner of a false inclusiveness. Lastly, this chapter examines the literature on historical games scholarship, including both textual analyses and work more keenly focused on the potential uses of such games in history education. This section begins with an assessment of this area of research, as much as it can be said to exist at all, and distinguishes between various kinds of scholarship on historical games in order to determine the primary objects and concerns of historical games research. It then moves to a more specific engagement with scholarship on historical games: how they enact, represent, engage and mobilize history for players; what playing historical games does for our understandings of the past (and of memory); what their limitations as historical representations are; and how historians and educators might use them productively to teach history. In exploring these three areas to provide context for my research, I intend as well to highlight a few key perspectives/positions that have been vital in informing my thinking about games and their potential uses in education

Chapter 3 introduces the two participant-based research projects which unfolded over an 18-month period at two Canadian universities, and explains their methodological framework. The first, *Past Stories and Future Worlds: Popular Imagination in Fallout 4*, involved having participants play the game *Fallout 4* and reflect on their experiences. It includes data from semi-structured interviews, a demographic questionnaire, pre/post questionnaires about history and historical understandings, screen captures of play, and participant-driven reflection in the form of a "travelogue," a data collection tool modified and borrowed from Taylor, McArthur and Jenson (2012). The second project, titled *Re-thinking History Teaching: Historical Making and Learning in Digital Culture*, centered around students in a third-year history class

taught by myself. These students were responsible for designing their own original and interactive historical game as a final project course project, and data was taken from those projects/students who consented to participate in the research. Both projects are discussed in detail in this chapter.

Chapter 4 introduces the first research study that took place at York University over the winter, spring and summer of 2019 at York university, and centered around having participants play *Fallout 4*. This study was broken into two parts, a textual analysis of the game in order to illuminate how it enacts and raises critical questions about history, and a participant component that involved having subjects play the game and reflect upon their experiences. This chapter begins by introducing the project in broad terms, providing a summary overview of the textual analysis that I conducted of the game *Fallout 4*, and a brief discussion of counterfactuals and their place/uses in disciplinary history. It then moves to an analysis of the data collected from the study. The instruments that were designed and ultimately included in the study consisted of written observations of play, semi-structured interviews, pre and post questionnaires about history and historical understandings, screen captures of play, and a participant driven reflection in the form of a "travelogue." The rest of the chapter deals with specific case studies and examples from participant data that is related to these categories and analyses of data that reveal examples where the game succeeded in getting participants to think about and engage with history in a more critical way, and where it – and the study in general – fell short of this outcome.

The fifth chapter focuses on the second research project that took place at Carleton University in the Fall of 2019. While conducting the first research project on *Fallout 4*, I began

to think about teaching and learning through the process of making in addition to playing. In the *Fallout 4* study (the first project), participants played the game and reflected upon their experiences. I realized that this alone would capture an incomplete picture of the educational potential of digital historical games, and so began devising a subsequent study where participants would be responsible for making a game of their own. In so doing, I hoped to combine data from both projects to pursue a more complete conversation regarding how playing *and* producing historical games can have positive affects in history education, and most importantly in the development of critical historical skills. This chapter introduces the findings from this research, and provides a breakdown of them on both a macro and micro scale via specific case studies. Data consists primarily of student responses on their **critical reflection documents**, a research instrument that I designed for the study. The critical reflection document consisted of ten questions, which were intended to guide a response from each individual student about the work that they undertook for the final project in the course, and elicit information about a number of key components involved in developing and advancing learning and critical skills. In addition, voluntary interviews were intended to serve as an additional opportunity for the students to engage in this reflection, and consisted of similar (though somewhat different questions) using a responsive approach that allowed ample time for students to expand upon their thinking/answers.

The sixth chapter brings both of these projects together in conversation with the core questions that have guided my research throughout this process. It acknowledges that at first they may seem to have little in common, outside of a general concern with the possibilities for digital games in history education, and undoubtedly this is the consequence of how these

projects came about. When I began work on my PhD proposal, I had not given a great deal of thought to game-based learning from a non-instructionist perspective, and my immersion in the literature on GBL was dominated by research that analyzed and advocated for the use of game in the classroom via play rather than production. It was not until the *Fallout 4* study was well under way that I became convinced that the data I was gathering was missing something significant. And, truthfully, it was in part the limited range of a critical view of history expressed in many of the responses I was receiving in this study that directed me towards an interest in the prospect of game production, rather than game play, as a possible source of critical skills building. As this chapter seeks to clarify, even this admission should not be taken as having led to the creation of two totally different projects, but as an organic process where seeking additional context and perspective became essential in doing this research on historical games and their uses in learning. Indeed, and as this chapter makes evident, these two studies are explicitly linked, and should not be viewed separately regardless of the circumstances of their formation. Both share a core concern with the possibilities for historical games in critical (and historical) skills development. Both draw attention to core issues in history education that often produce lackluster outcomes for students, especially as it concerns their capacity to think about, interrogate, challenge, and engage meaningfully with history and its objects in their daily life. More importantly, both projects add additional weight to the long-standing contention in educational research that *engagement* genuinely matters for knowledge building and skills development. In data from both studies, positive learning outcomes were directly linked to an interest in and engagement with the object in question (whether the game *Fallout 4* or the project of making a historical game). Further, though certainly in a more limited way in the case

of the *Fallout 4* project, both research studies provide clear evidence that engaging with historical games via play or production can invite students to grapple with questions regarding historical knowledge and making that help to develop and sharpen their critical historical skills. There were participants in the York study that described how the game made them think about history is, how it is produced, how agency and power are defined and established, just as there were participants in the Carleton study who explained how designing and producing a historical game led them to ask questions about how they wanted to define and position history for the consumption of others (the players of their game). These two projects are very much in conversation together, offering useful comparison certainly but also a shared consensus regarding the positive and productive potential for historical games and game production in history education.

Chapter Two: Literature Review

Introduction

The research projects undertaken for my PhD fieldwork: *Past stories and Future Worlds – Popular Imagination in Fallout 4* (York University/Seneca College, York campus) and *Re-thinking History Teaching – Making and Learning in Digital Culture* (Carleton University) are informed by scholarship from three interconnected subject areas that all fall under the umbrella of game studies. These areas are, broadly: the literature of game-based learning (GBL), a specific area within both game studies and education, as it has evolved in the last three decades; the considerably smaller body of research within GBL scholarship that specifically investigates *game design and production*, initially pioneered by Papert (1980) some forty years ago; and finally, the (until recently) relatively nascent scholarship on historical games. This chapter will outline research and scholarship belonging to these three, related areas of study, in order to situate my work concretely within existing literature on game-based learning, game design and production, and historical games. It begins with an introduction of GBL through scholars like Marc Prensky (2001) and James Paul Gee (2003), and examines its core principles, as well as how it situates itself within a broader literature on education and pedagogy in the twenty-first century. This section then analyzes some of the earlier and more recent approaches to GBL and accompanying research into its effectiveness and efficacy as a pedagogical approach. Following the review of GBL scholarship, I will outline literature that shares a particular concern within game-based learning for game design and production as activities to foster learning and develop many of the core competencies introduced in the previous section. For this literature, I turn primarily to perspectives that have emerged out of a

constructionist approach to game design and production, given that the bulk of early work done in this area follows that of Seymour Papert in 1980. This section will introduce this sub-area of GBL scholarship, and zero in on constructionist approaches, as well as critiques raised by others working in game production and their call for a reformulation away from strictly constructionist approaches, advocating instead for a "production pedagogy" (de Castell, 2011; Thumlert, de Castell, and Jenson, 2015; 2018). This alternative perspective is more actively situated for meeting the needs of learners (and being cognisant of the contexts *they bring with them* to the design process) and weary of the tendency for neoliberal education policy to subsume novel attempts at learning under the banner of a false inclusiveness.

Lastly, I will examine the literature on historical games scholarship, including both textual analyses and work more keenly focused on the potential uses of such games in history education. This section begins with an assessment of this area of study, and distinguishes between various kinds of scholarship on historical games in order to determine the primary objects and concerns of historical games research. It then moves to a more specific engagement with historical games, how they enact, represent, engage and mobilize history for players, what playing historical games does for our understandings of the past (and of memory), what their limitations as historical representations are, and how historians and educators might use them productively to teach history. Given the variety of historical games, there is hardly agreement on this last point, since different games introduce different histories in different ways. As such, as it relates to history education, I am primarily concerned with research that addresses historical games and education in the context of the acquisition of *critical historical skills*, understood to mean the capacity to engage with the constituent

components of historical objects (texts) like subject position, ideology, interpretation, evidence, argument, audience, class, race, and sex, thoughtfully, critically, and productively. This means that my research *less* concerned about the specific content of a particular historical game, and *more* interested in how that game introduces, positions, refigures, and reimagines history, and thus how it makes arguments concerning *what history is*.

Game-based Learning

Introduction – Core principles

As an area of study, game-based learning (GBL) most often locates its origins in the early work of Prensky (2001), and Gee (2003). While others, including Seymour Papert (1980) Harel and Papert (1991), and Yasmin Kafai (1995) were writing earlier about the potential of game design and production as educational activities, GBL came into its own with research that explored the possibilities for *using games* in the classroom as teaching tools. However, while Prensky and Gee are often the focus, it is important to note they were not the only ones writing about games and learning in this early period (see de Castell and Jenson, 2003; Reiber, Luke, and Smith, 1998; Rieber and Matzko, 2001). Writing in *Digital Game-based Learning*, Prensky argues that, "the key premise of this book is that by marrying the engagement of games and entertainment with the content of learning and training it is possible to fundamentally improve the nature of education and training for these students and trainers" (Prensky, 2001, 4-5). For Prensky, the turn towards GBL comes as a recognition that "today's trainers and trainees are from totally diferent worlds," and further that "the biggest dynamic in training and learning today is the rapid and unexpected confrontation of a corps of trainers and teachers raised in a predigital generation… with a body of learners raised in the digital world" (Prensky, 2001, 13).

In fact, Prensky is often credited with coining the terms “digital native” (to describe the present generation of learners and workers) and “digital immigrant” (to describe older generations like the baby boomers). There are a number of serious issues with Prensky’s framing and his work: the notion of ‘digital natives’ and ‘immigrants’ has been widely panned by other GBL scholars (Jenson and Droumeva, 2017) as vastly oversimplified and inaccurate, and his advocacy for a neoliberal approach to the integration of GBL in education has likewise received wide-spread criticism. His book often reads more as an advertising pitch than serious scholarship (he routinely highlights the work of his own company as ‘proof’ of the efficacy of games), but there is no question that *Digital Game-based Learning* also influenced the growth of research in the field, serving as an early example that highlighted the possibilities for games as interactive and engaging learning tools.

The early work of Gee (2003) is considerably closer to an actual philosophy of learning (he is a scholar, not a business person like Prensky), though not also without its problems. Approaching the question of GBL from a decidedly pedagogical perspective, Gee outlines thirty-six features of ‘good’ games in *What Video Games Have to Teach us About Learning and Literacy* that makes them potentially powerful tools for learning. While it is impossible here to work through them all, I can summarize the core arguments Gee makes by focusing on two positions he takes in relation to learning, and to ‘good’ games. First, Gee maps out an understanding of general literacy by stating that: “to understand or produce any word, symbol, image, or artifact in a given semiotic domain, a person must be able to situate the meaning of that word, symbol, image, or artifact within embodied experience of action, interaction, or dialogue in or about the domain” (Gee, 2003, 24). Second, Gee outlines the features of ‘good’

games, and connects them directly to this learning process. For Gee, good video games involve solving problems to achieve goals, and they entice player immersion by providing characters onto which players can project their own values, goals, and aspirations, thus forming an empathetic bond with them while they navigate the virtual world. The design properties of the game necessitate active, critical thinking to solve problems, and their co-constituted (via player and designer) and contingent (what they mean changes depending on who players are and how gameplay itself unfolds) structures invite players into simulations that represent how the mind actually works when it is working best to learn *something*, via the probe, hypothesize, reprobe, rethink model Gee describes (2003, 90). In essence, good games in many ways mimic what the mind already does when it is working well to tackle problems and build simulations for understanding and knowledge acquisition. It is embodied experience, practice, and context-building.

Even more than Prensky, Gee's early work on video games and GBL exercised a considerable influence in shaping later research and both have remained active in the field. Like Prensky, Gee's work is not without significant issues. For example, while he makes a compelling case for how games instantiate environments that mirror *what good learning should look like*, there is no empirical evidence presented in the book to support this claim. This is pointed out as a general criticism of early GBL scholarship by de Castell and Jenson, who are writing around the same time, that "these analyses share in common a failure to situate games and game-playing within a lived culture of gaming" (2003, 651). That is, there is an absence of research that is participant centered. Add to that the other general critique levelled by de Castell and Jenson, that many of these scholars do not actually engage with the media they are studying *as*

players (2003, 651). Indeed, neither Prensky or Gee ever mentions actually playing the games they write about, and Gee specifically notes that his initial interest emerged largely as a consequence of watching someone else play. Finally, while Gee certainly compliments the features of 'good' games for learning, his view is not that digital games are necessary for GBL, but rather only that their design features, transplanted to fit into the classroom setting, are. It is worth remembering that while Prensky and Gee are the most cited early research in GBL, other important work, and critiques of their research, should not be overlooked. It matters that neither Prensky nor Gee see a value in including empirical data from participant studies that can actually demonstrate what they are advocating for, just as it matters that neither spends much time considering *why* play can work as such a powerful motivator for learning, outside of loose association with fun or excitement. In contrast, de Castell and Jenson carefully argue for *more* research that includes learners and players, and repeatedly stress "play and learning as mutually constitutive," and "their conjunction, therefore, as transformative of both" (2003, 659). They correctly point out that edugames, precisely of the kind Prensky has in mind, most often deliberatively divorce these concepts and generate products that are neither educational nor engaging. This simultaneously rebukes Gee's position, that the game object is not important to GBL, only the environment it fosters. It matters that there are games, that there are gamers, and that games are engaging and fun to play, as the authors point out: "game play, at its best and most powerful, is engaged seriously, with effort, commitment, and determination; and this, like any serious engagement in learning, affords pleasure, excitement, immersion, and playfulness" (de Castell and Jenson, 2003, 659).

In a response directly to Gee's work, Ian Bogost argues that: "videogames do not just offer situated meaning and embodied experiences of real and imagined worlds and relationships: they offer meaning and experiences of *particular* worlds and *particular* relationships" (Bogost, 2007, 241). This forms a part of what Bogost defines as a game's *procedural rhetoric*, or how games present particular ideas, views, understandings, relationships, and *arguments* to their users, regardless of how they are used or approached. For Bogost, what makes games potentially powerful tools for learning is precisely this feature: "procedural rhetoric is a type of procedural literacy that advances and challenges the logics that underlie behavior, and how such logics work. Procedural literacy entails the ability to read and write procedural rhetorics" (Bogost, 2007, 258). Thus, by being immersed in the system, players are given an opportunity both to examine the rules and structures that define the play-space and to question/challenge them, in the process building a procedural literacy. In his work on the potential uses for games in the classroom, Kurt Squire also points towards this feature of games, not as a detraction but as a *positive* feature: "games are ideological worlds in that they instantiate ideas through implicit rule sets and systems… every game makes value judgments about what is and is not important" (Squire, 2011, 28-29). Scholars like Bogost and Squire have highlighted the importance of viewing games as ideological constructs with their own logics and systems, that make *arguments* about the world as well. This adds a critical component that is missing in the work of Prensky and Gee, and is crucial for understanding how games can and do contribute to learning – as students interact with these ideological worlds.

Game-based Learning and Literacy

Another core principle of GBL that may be linked back to the work of Gee, but that has since broadened considerably is the relationship between gameplay and literacy. Gee argued that 'good' games represent a good model for thinking about how literacy is developed. because they consist of simulated worlds that situate meaning and allow for embodied experiences, which contributes to the context-building involved in the development of semiotic domains and affinity groups. Taking up this perspective, in her work on MMOs (massively-multiplayer online games), Steinkuehler argues that present within these virtual worlds are communities of apprenticeship, where new players develop skills and literacies by engaging with experts as they come to understand the logics of the game world (Steinkuehler, 2006; Steinkuehler and Oh, 2012). Borrowing heavily from Gee's affinity groups and Wenger's communities of practice, Steinkuehler and Oh argue that: "discourses such as those constituting MMOs are not mastered through overt instruction but rather through apprenticeship. Gamers who have already mastered the social and material practices requisite to game-play enculturate, though scaffolded and supported interactions, new players" (Steinkuehler and Oh, 2012, 181). In this context, the literacy gameplay offers is one shaped by community interaction, and by enculturation into a specific community of practice. This perspective is not novel, but informs the work of many GBL scholars that argue for the development of literacies related to GBL which are specifically linked to participation in the "metagame" (defined by Gee in 2003 as the communities and activates that form around the game, rather than directly within it, like online forums and discussion boards). Examples of this include Steinkuehler's work on MMOs, as well as Squire's work on Apolyton University, a *Civilization III* online forum

(2004; 2008; 2011), and Gee's work on affinity groups, including for example some of those that formed about the digital game *The Sims* in his work with Elizabeth Hayes (Gee, 2003; 2007; Gee and Hayes, 2011; 2012).

This is however not the only perspective, and it is important to include how scholars less explicitly linked to Gee have approached the relationship between GBL and literacy as well. For example, writing in 2013, Catherine Beavis and Tom Apperley advocate for an approach to games literacy that recenters games as active media while continuing to acknowledge their role as texts: "they [games] cannot be understood simply on textual terms… while the 'meanings' of digital games are negotiated and produced in the interaction between 'text' and reader, we believe it is important that the model also demonstrate how digital games are enacted and instantiated through *action*" (Apperly and Beavis, 2013, 2). While this does not discount the previous work of Gee, Steinkuehler, Squire and others, it reorients the model for gaming literacy with a key concern for the active, ludic component of digital games. In her later work on the serious games project, Beavis, along with Prestridge and O'Mara recognize that "the multimodal nature of meaning-making and the representation of knowledge exemplified by video games has implications for all areas of schooling," and further that "if teachers are to fully utilize digital games, practice and planning need to call on understandings of of games as both text and action" (Beavis et al., 2017, 147). This requires, according to the authors, a "profound reconceptualization of the concept of literacy" (147) and they are not alone in staking this claim related to GBL. In her work on "ludic epistemologies," de Castell echoes this call for a reformulation of learning that is fundamentally "re-fused" with play: "ludic epistemology references the need for educational game studies to remediate traditional (linguistically

mediated) epistemologies. Its guiding questions are about what it means to encode knowledge in the form of a game, and *how we might conceive of coming to know as a process of playing*" (de Castell, 2011, 20). While for Eric Zimmerman, similarly, a gaming literacy "asks how playing, understanding and designing games all embody crucial ways of looking at the world" (Zimmerman, 2013, 162). All of these perspectives stake out play as a critical category, and direct researchers to consider games as both text and action in exploring their possibilities for learning, highlighting the important connections between knowledge building and engagement. In advocating for a model of gaming literacy that includes both games-as-action and games-as-text, Beavis and Apperley acknowledge that the intention is to "provide a framework for planning games-based curriculum and pedagogy" that are capable of honestly positioning games and the kinds of literacy-building that unfold in and out of school, through play (Apperley and Beavis, 2013, 8). Perspectives that emphasize the importance of play and design in addition to the interaction with text (multimodal) that games necessitate recognize the lingering appeal of engagement, and crucially *fun,* that games can offer learning settings. From both the gameplay and game-design perspectives, the gaming literacies outlined here seek to refigure literacy as combining action and text, engagement and critical inquiry, with the ideological worlds of games serving as one possible option capable of meeting the needs of learners as they seek to develop twenty-first century competencies.

Educational Imperatives in the twenty-first Century

A great bulk of the scholarship on GBL advocates in one way for another for games as highly immersive, engaging, interactive, thoughtful (when 'good' or 'serious') and challenging media objects that can not only excite students but be put to use productively in classrooms as

learning tools (Beavis, 2004; Beavis et al., 2017; de Castell, Boschman, and Jenson, 2008; Gee, 2003; Jenson et al., 2016; Prensky, 2001; Squire, 2004; 2011; Steinkuehler, Squire and Barab, 2012), but there are several questions that remain. The first, addressed here, is how GBL seeks to align itself with educational imperatives for the twenty-first century outlined across a series of professional, corporate, and academic tracts (Dede, 2014; Downes, 2005; Lankshear, 2006; Lankshear and Knobel, 2002; Voogt et al., 2013). Several of these directly address the potential role for games and gamed-based curricula in school (Perrotta et al., 2013; Royle and Colfer, 2010). Beavis and Apperley acknowledge in their work on gaming literacy that "media literacy," is one of the three "core competencies" outlined in the US national education technology plan (2010, 13), and position games and gaming literacy within (but also beyond) this purview. In their 2010 report prepared for the Centre for Developmental and Applied Research in Education (UK based), Royle and Colfer argue that the "widespread embedding of games into culture and the fabric of society," more or less necessitates a response from the education sector that should include both the introduction of games and GBL curriculum, and "transfer games based pedagogy and learning into analogue activity within the classroom" (Royle and Colfer, 2010, 13, 17). Perrotta et al., in their report generated for the National Foundation for Education Research (2013, UK based) strike a more positive and evidenced-based tone. Assessing data from 31 GBL projects from 2006 onwards, the authors state that "evidence tentatively suggests that video games are motivating and support a more positive attitude towards learning and school" though they stress in particular the need for more longitudinal research projects (25).

With consideration of the scholarship on game-based literacy outlined here, much of the potential for games is tied to their capacity to unlock certain ways of thinking, knowing and communicating that are tied to twenty-first century competencies for successful and productive participation in globalized and knowledge-based economies and societies. This includes, but is not limited to: games' capacity to encourage and build systems-based thinking; problem solving skills; situated and embodied (i.e. context-based) meaning; design and computational literacy; collaboration; and investment in affinity groups and communities of practice. Taken together, this set of skills (and others) can inform part of a broader immersion and education in "media" and "digital" literacy. And, as Voogt et al. point out, this form of literacy should "not be viewed as a separate set of skills," but rather "embedded within and across the other twenty-first century competencies and core subjects" (2013, 410). Chris Dede is even more explicit, arguing that "a transformation to a technology-based, deeper-learning-driven model of twenty-first century education is absolutely necessary" (Dede, 2014, 2). Further, in listing the various kinds of technology he wishes to advocate for (*including* Games and Simulations), Dede contends that "all of these technologies can be used in the service of deeper learning," and "can help prepare students for life and work in the twenty-first century" (Dede, 2014, 6). Game-based learning represents therefore an attempt to ally the potential of games as educational resources with a growing demand for new literacies and ways of thinking to be introduced into curricula in order to prepare learners for the twenty-first century.

Empirical Research

Given the growth of GBL in the past two decades, and the increasing integration of games into learning contexts, it should come as no surprise that there is increasing pressure on

GBL scholarship to demonstrate, clearly, not just the potential but the *efficacy* of using games in education. To that end, there are a large volume of projects that seek to illuminate how gameplay (and game design) impact learning and knowledge acquisition. On the micro scale, many such projects have argued, with empirical evidence generated from quantitative and qualitative data, for positive links between gameplay/design and learning (for example, Beavis et al., 2017; de Castell, Boschman and Jenson, 2008; Jenson, Black, and de Castell, 2018; Squire, 2004; Warner, Richardson, and Lange, 2019). This work also represents a significant departure from the well-known early GBL scholarship, which in general attempted to highlight the potential for games, and what they *can* do, with little participant-based research or empirical evidence. For the purposes of brevity, and acknowledging that I cannot provide a full picture of the empirical data in this limited space, I will instead focus on the findings generated from five meta-analyses (research that analyzes dozens and sometimes hundreds of these empirical projects in GBL and reports on their general findings and patterns). Two of these (Perrotta et al., 2013; Royle and Colfer, 2010) have already been discussed. Three others (Connolly et al., 2012; Clark, Tanner-Smith and Killingsworth, 2015; Young et al., 2012) feature data collection and analyses of hundreds of GBL projects to assess learning outcomes. Their findings are mixed, though each group echoes a call for continued empirical and participant based research, with Young et al. in particular emphasizing a need for more longitudinal studies that "examine the impact of educational games" (2012, 82). In brief: Connolly et al. intended to "carry out of systematic literature review of empirical evidence about the positive impacts and outcomes of computer games and serious games" (2012, 662). In so doing, they claim that "empirical evidence was identified concerning all the learning and behavioral outcomes including

knowledge acquisition, perceptual and cognitive, behavioral, affective, motivational, physiological, and social outcomes," though they stress that an overreliance on qualitative data and the paucity of RCTs (randomized-control trials) in the various projects reviewed renders these findings more tenuous (Connolly et al., 2012, 671-672). As a consequence, they argue for continued qualitative and quantitative research. In their meta review, Young et al. were considerably less optimistic, noting that: "after initial review, we determined that, to date, there is limited evidence to suggest how educational games can be used to solve the problems inherent in the structure of traditional K-12 schooling and academia" (2012, 62). Conducting a meta-review of research on educational games across five major subject areas – Math, Science, Language Learning, Physical Education, History - the authors found that "the inconclusive nature of game-based learning research seems to only hint at the value of games as educational tools," and further that "evidence for their impact on student achievement is slim" (Young et al., 2012, 80). As with Connolly et al, the authors recommend continued research, especially of those educational games already widely used, along with more longitudinal research.

Lastly, Clark, Tanner-Smith and Killingsworth (2015) conducted a "systematic review" of research on digital games and learning, and "synthesized comparisons of game versus nongame conditions" to compare how each enhanced (or did not) student learning (79). According to their findings, "digital games significantly enhanced student learning relative to nongame conditions" and "game conditions support overall improvements on intrapersonal learning outcomes relative to nongame instructional conditions" (Clark, Tanner-Smith and Killingsworth, 2016, 79, 108). Striking a more positive tone than Young et al., these authors nonetheless caution that "high order cognitive, intrapersonal and interpersonal processes and skills prove

more challenging to measure accurately and reliably," and suggest that "ongoing development and research should focus more heavily on accurate and reliable assessment of higher order learning outcomes" (Clark, Tanner-Smith and Killingsworth, 2015, 115-116). Perhaps the best way to consider all of these meta-analyses together is to acknowledge that they do generally reveal some benefits of GBL, but that more solid, empirical research is necessary, and this is especially true of research focused on higher-order cognitive skills development, like the two projects I have undertaken.

Game Design and Production

Background

In the previous section, I introduced scholarship on game-based learning, beginning with early scholars like Prensky (2001) and Gee (2003), and following the growth of the field over the previous two decades. As has been illuminated, a great deal – though not all – of this research views game-based learning from a predominately *instructionist* perspective. Defined by Kafai (2006): "the instructionists, accustomed to thinking in terms of making educational materials, turn naturally to the concept of designing instructional games," (37). That is, the bulk of research on game-based learning either investigates or advocates for the production and dissemination of educational games into schools (Barab et al., 2009; 2012; Brown, 2008; Klopfer et al., 2018; Prensky, 2001), or, for the use of commercial games in education (see Beavis et al., 2017; Choontanom and Nardi, 2012; Squire, 2004; 2011; Steinkuehler, 2006). Given the growth of the field, this is hardly an exhaustive list, but it should suffice to highlight the volume of scholarship on GBL that takes a primarily instructionist bent. However, as Kafai and Burke point out in their work on "connected gaming," the evolution of the field of game-based learning

scholarship has trended over time towards "a more comprehensive stance that views both making and gaming as part of a larger umbrella," (Kafai and Burke, 2016, 5). Scholarship on learning-by-design, and particularly on constructionist schema that involve the often collaborative production of "objects-to-think-with" (in this case games, see Papert 1980), have complimented work advocating for the development of edugames, or the use of certain, 'serious' commercial games in school. Both positions share much in common, as Kafai and Burke point out, including a deep belief in the capacity for games to excite learners and offer them an opportunity to engage critically with media objects, systems thinking, computational practice, problem-solving, programming, and productive acts of making, in ways that can help to develop competencies in literacy, critical thinking and design. In this section, I will focus on some of the important research that looks specifically at game production and learning by design, not as a contrast to literature on game-based learning but as a compliment to it. I developed and executed a research project that made use of this approach as part of my doctoral field work. It is therefore essential to position myself within this research. This section will introduce some of the key concepts involved in this perspective.

Constructionist game-based Learning

Writing in the inaugural issue of *Games and Culture* in 2006, Yasmin Kafai defined the constructionist approach to game-based learning as: "their [constructionist] goal has been to provide students with greater opportunities to construct their own games – and to construct new relationships with knowledge in the process," (2006, 38). As educational theory, constructionism has its own body of scholarship that is quite vast, and impossible to cover in detail here, but the core principle of the constructionist perspective, as it relates to GBL is that

it changes the role of learner-as-player into learner-as-maker: “in the case of constructionist games, the learner is involved in all design decisions and begins to develop technological fluency,” (Kafai, 2006, 39). More than this, as Kafai acknowledges in her early work, “children are placed in the position of producers of knowledge” (1995, 4). Kafai defines constructionism and its relationship to productive acts of making in the following way:

> Constructivist theories assume that knowledge is actively constructed and reconstructed by the learner out of his or her experiences in the world. An extension of this knowledge construction process is provided by constructionist theories that place the building or making of actual objects at the core of this knowledge construction process, in which learners establish diverse relationships or connections (Papert 1980). Learning through design offers one example of a constructionist approach in which children can be engaged in meaningful activities (Kafai, 1995, 10).

In her later work Kafai introduces the concept of technological fluency, relating it to “gaming fluency,” and identifying three key features: technical, critical, and creative practices (Kafai and Peppler, 2012, 356). In their description, these are defined as practices related to technical game design and development, critical engagement with media objects via design, and creative expression and the development/growth of a ‘visual literacy’ (357-358). In sum, by working with design principles and constructing these ‘objects-to-think-with,’ learners are encouraged to consider critical questions of design and media and thus to develop the requisite skills necessary to engage meaningfully with this productive process of making.

In placing the learner at the centre of the learning and creative project, the constructionist approach to game-based learning offers different and positive forms of

interaction between learners and games. It empowers them to take control of their learning in a way that only playing a game cannot. In working through the process of design and development, students have to familiarize themselves not just with code or programming software, but with the subject at hand and its representation in media. Games, therefore, are one of the media objects that would be included in Jenson, Thumlert, and Castell's conception of "dynamic production pedagogies," (2015, 787). As they later define it, "A production pedagogy is one in which learning actors are enabled to engage (multi)literacy, artistic, and/or practical design challenges and aptitudes *through* the making of authentic cultural artefacts," (Thumlert, de Castell, and Jenson, 2015, 797). In their work, they utilize arguments for communal action outlined by Latour (2005) and others (as a central premise of actor-network-theory) to move towards an understanding of both educational technologies and learning as productive, active, and user-centered:

> In terms of actor-roles, learners are no longer situated as subjects that are waiting for their minds to be filled with knowledge (Freire, 2006) but instead enact, with and through a technology, *their own* course of learning, by engaging idiosyncratic challenges, by figuring things out, and by co-producing multimodal artefacts (Thumlert, de Castell, and Jenson, 2015, 791).

This echoes the work of many others who argue that by designing and developing a game, learners encounter and must overcome challenges related not just to technical proficiency, but also *ways of thinking* and *ideological systems* that are embedded in the act of production and further introduced by the subject of the design in question (see Galloway, 2006; Squire, 2011). This also extends to another core feature of the constructionist perspective, which is the

inherent sociality of the design and development process, and the evolution and growth of "communities of practice" (Wenger, 1999; see also Gee, 2003) that end up surrounding it. This is why for example in their work on *Resonant Games* Klopfer et al. list "honor[ing] the sociality of learning and play," as one of their four broad principles of design, arguing that "resonant design is predicated on the idea that learning is both and individual and social experience" (2018, 4).

The 'communities of practice' that grow out of the design and development process work to foster continuing growth and learning for the participants, which in turn leads to the development of competencies within that community of practice that allow the student to become confident over time. Instead of assuming a relationship of expert vs. novice, constructionist game-based learning places the student in the position of producer and allows them to learn the process in conversation with other producer-students undertaking the same work, sharing insights, successes, and mistakes. And what makes learning by design so compelling, as mentioned above, is that it gives the learner an object to make with which they can establish their own *meaningful connection* because it is *theirs*:

> A game design starts out in the abstract and becomes concrete as the designer creates and implements its different features. In this process, the game designer becomes more and more involved with his or her own ideas and renders the project personally meaningful. From this perspective, learning through design emphasizes that learning is most effective when children build personal, meaningful objects (Kafai, 1995, 11).

The potential for constructionist game-based learning, therefore, is that it combines the elements of good learning together, both the productive act of knowledge construction via

design and development, and personal engagement and interest by producing something the learner becomes invested in as personally meaningful to them. And finally, both sequences are, or at least should be, collaborative. This includes sharing the products of their work with others, forming communities of practice where learner-designers can share information and continue to build knowledge collaboratively, and working with others on shared projects. In *Connected Gaming*, Kafai and Burke attempt to bring these core elements of constructionist game-based learning together to stress the importance of collaboration and community in game production: "They [games] become objects-to-think-with, and objects-to-share-with that have real value among youths. It is here that we see the largest cultural shift in serious gaming, away from the top-down teachable product of intructionist gaming to the ground-up sharable product made by members of the community" (Kafai and Burke, 2016, 10). At its best, constructionist game-based learning encourages exploration and knowledge discovery via the acts of design and making, and stresses that this process is and should be a social and collaborative one, involving sharing and building knowledge together as production unfolds.

Production Pedagogies

Offering a different perspective on learning-by design, Thumlert, de Castell, and Jenson (2018) point out in their work on production pedagogies that the constructionist approach is not without its problems and limitations. In their advocating for a *production pedagogy* instead of constructionist game-based learning, the authors acknowledge the contributions of constructionism but argue that over time its more ideal aims have largely been "subsumed by standardizing, means-ends discourses, where digital making in schools is (re)positioned, more conventionally, in terms of 'equipping' students with technical skills and 'preparing' them for

participation in the STEM-related workforce of today" (Thumlert, de Castell, and Jenson, 2018, 705). This is undoubtedly the case, and should hardly be surprising, given, as the authors point out, "the backdrop of a neoliberal performativity culture that pervades nearly every aspect of education today (2018, 705). Most importantly, Thumlert, de Castell and Jenson argue that the framework which has been at the core of constructionist game-based learning largely from its inception actually contributes to this instrumentalization of the constructionist project (and ideal):

> By articulating a curricularized understanding of the "good things" (Papert 1980b) that students are to make and learn and, alongside that, a highly contained, politically clinical view of "the social" and "the public"… consequently, the learning outcomes associated with maker and constructionist environments are largely constrained by curricular objectives, by prepackaged/corporate "construction kits", and by the assessment ends of schooling systems (2018, 705).

In essence, at their very core some of the foundational principles of constructionism have lent themselves to the educational system they initially sought to disrupt and transform, becoming absorbed by the neoliberal project and reduced to the same form of curricular activity they sought to displace. And this is because of constructionism's failure to properly contend with questions of pedagogy, which is precisely what a 'production pedagogy' seeks to address. A "production pedagogy," is "premised on the view that people learn best, and learn most deeply, through designing and making things that address learners' *present* purposes and self-defined concerns: real-world objects and technology artefacts that have immediate sociocultural worth to the makers" (Thumlert, de Castell, and Jenson, 2018, 708). This position

fundamentally recenters pedagogy by acknowledging the position of the learner and the need for *meaningful engagement* (and by including the learner in this consideration) rather than assuming a one-size-fits-all approach that is already the bane of so much in education, and indeed, in the earlier, free-form constructionist approach. It is more focused, and more firmly rooted in present sociocultural questions and concerns, and thus in raising and asking questions that are relevant for the learners to consider in the present.

The critiques that are raised about constructionist game-based learning by those advocating for a 'production pedagogy' are fair and must be considered, though I do not believe that such an approach should be completely done away with. As they point out, work like *Connected Gaming* (2016) is seeking to "broaden computational participation for personal and civic engagement" while maintaining a constructionist lens (Thumlert, de Castell, and Jenson, 2018, 707). Nevertheless, in articulating a "production pedagogy," Thumlert, de Castell, and Jenson seek to move away from some of the constraints of constructionist theory (and certainly its less than ideal formulation in many school curricula) and refocus our thinking about learning-by-design – and more explicitly by developing and making games – as active, social, and importantly, *critical:*

> asking students to take producer-like roles as makers of digital culture leads to reflecting upon producer-like responsibilities informed by a grasp of the conditions of possibility that necessarily shape and constrain real-world activities of production, raising complex and challenging questions about the economy of values deeply structured into games and play (Thumlert, de Castell, and Jenson, 2018, 710).

Rather than view these two perspectives as fundamentally incompatible, I would argue for the need to bring them together, to acknowledge the contribution of constructionist theory (and indeed these authors do) in advocating for learning-by-design via the making of meaningful objects that foster engagement and knowledge-building, while maintaining the central importance of criticality at the centre of design and production. Considering the constructionist literature review here, in conjunction with the 'production pedagogy' proposed by Thumlert, de Castell, and Jenson, I would argue this is one of the features that makes game production compelling as a learning activity for students. Avoiding the pitfalls of instrumentalizied or corporatized 'game design' as it often appears, game production of the kind I am interested it in – and have pursued – zeroes in precisely on the ideological character of game worlds and of design as a process, and issues a challenge to students to grapple with critical questions as they seek to produce objects that are relevant to their present experiences in the world, and that are *meaningful* for them. This allies a concern for production as tied to the sociocultural present with a belief in the capacity for making to sincerely engage and produce knowledge for learners that extends far beyond the processes of development.

Historical Games

Introduction

As media objects, historical games have been defined in a number of ways over the past two decades as researchers and historians have continued to plumb the depths of digital history. Digital history of course is itself somewhat loosely defined, to include all that material of and about history that has emerged alongside radio, television, digital photography, film, the internet, e-archives and museums, and, yes, digital games. I do not have the space here to

explore digital history, its encroachment into the space over which text has exercised a monopoly for centuries, and its ramifications for the discipline and for the public's engagement with the past, suffice to say its impacts continue to be profound and often disruptive for academic history and historians. Digital historical games represent one example out of this larger body of emerging historical forms, with their own unique features that raise unique questions about history, its representation, and our engagement with the past. While some research exists earlier, it can confidently be said that interest in the study of historical games as important historical media increased significantly in response to the research completed by Kurt Squire (2004) and William Uricchio (2005).

What are Historical Games, and what is 'Historical Game Studies'?

Writing in 2005, Uricchio distinguished between historical games of two kinds, historical representations and historical simulations. Historical representations, for Uricchio, "is specific in the sense that it deals with a particular historical events – a race, a battle – allowing the player to engage in a 'what if' encounter with a particular past," while historical simulations "are games that deal with historical processes in a somewhat abstracted or structural manner… in which a godlike player makes strategic decisions and learns to cope with the consequences" (Uricchio, 2005, 328). In contrast, McCallum-Stewart and Parsler (2007) argue that setting alone determines whether a game is historical: "the game has to begin at a clear point in real world history and that history has to have a manifest effect on the nature of the game experience" (204). The broadness of this definition, however, as Jeremiah McCall has pointed out, is ultimately rather unhelpful if we are seeking to understand what historical games do or can do. Thus, most later work regarding what historical games are (Chapman, 2012; 2013; 2016; Kapell

and Elliot, 2013; Kee, 2011; McCall, 2016; Metzger and Paxton, 2016; Peterson, Miller and Fedorko, 2013; Salvati and Bullinger, 2013; Squire, 2008; 2011;) has tended to take up Urrichio's initial taxonomy and build upon it. Squire, as noted earlier, introduced the straightforward but *important* caveat that historical games – like all games – are ideological worlds and systems to do 'stuff' with. They make arguments about the material they present to users, both explicitly (in narrative, story, setting, theme) and implicitly (via affordances and constraints on player action). Chapman further refines this in his own work on historical games, arguing that "the affordances of historical games make particular arguments about past action and afford particular opportunities for historical meaning-making and discovery to players" (2013, 63). In his later work, *Digital Games as History*, Chapman expands upon this point, noting: "digital games, in a way quite unlike conventional historical forms, open up the story for shared authorship," and further that "through play, historical narratives can be simultaneously emergently produced and received by players" (2016, 34).

Kee expands Urrichio's model to include three major categories of historical games, the "best possible story," "disciplinary history," and "postmodern history" (2011, 433), which borrow heavily from Peter Seixa's three epistemologies for history (2000). In the 'best possible story' game, "at the beginning of the game, the player would be unaware of an explanation of an historical event; by the end, he or she would have reached a degree of knowledge," which is accomplished by "fulfill[ing] certain goals to reach the desired outcome" (Kee, 2011, 433). The limitation of this approach, as Kee notes, is that being presented with only one possible outcome does not acknowledge the disciplinary lack of consensus regarding the past by historians. The 'disciplinary history' game, "focuses players' attention on choices and their

potential outcomes, enabling students to play out various historical scenarios" (Kee, 2011, 434). And, lastly the 'postmodern' game, "highlights our distance from the past and the difficulty of reconstructing an 'accurate' picture of what has gone on before" (Kee, 2011, 435). In contrast to McCallum-Stewart and Parsler, Kee's model also re-centres players/interaction as crucial in these categories. Players 'learn' history in action games by completing tasks and achieving goals, they 'learn' history in simulation games by applying/mastering strategy and experimenting, and they 'learn' history in adventure games via exploration and discovery. This echoes more recent scholarship, such as Kapell and Elliot, who argue that "that ludic capacity of historical video 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 and Elliot, 2013, 13). Peterson, Miller, and Fedorko share this view, explaining that "these simulations provide an opportunity for students to experience and play through historical thinking, rather than passively receiving historical representations" (Peterson, Miller and Fedorko, 2013, 44).

In their work (2016), Scott Metzger and Richard Paxton reframe the three categories initially offered by Kee, referring to them as *Monumental, Antiquarian,* and *Critical*. Their work is motivated, largely, by awareness of the possibility that "much of what students today 'know' about the past may come not from teachers, textbooks or tests but from popular-culture media, such as video games" (Metzger and Paxton, 2016, 533). Approaching their taxonomy, like Kee, from the perspective of pedagogy, the authors offer an "intellectual framework for describing the ways in which popular video games deploy historical elements and how these deployments may affect players' engagement with historical content" (Metzger and Paxton,

2016, 533). Unlike Kee, Metzger and Paxton pull from film theory to establish and refine their major categories, though again they wind up sharing many similarities. To this end, their definition of *Monumental* history and historical games relates most closely to Kee's 'best possible story,' such that these games seek to venerate historical experience in public memory by focusing on characteristics like valor and heroism. These games, according to Metzger and Paxton, "allow the player to play alongside, or even as, historical figures or groups valorized as heroic or in historical settings valorized as momentous or important for valued social changes" (2016, 546). *Antiquarian* history and historical games share some consistencies with Kee's 'disciplinary history,' though they have a more concentrated focus on historical objectivity in the form of empiricism and rendering realism (historical verisimilitude) in digital historical environments (i.e. *Assassin's Creed*), and less to do with a disciplinary exploration of abstract systems. Lastly, there are critical games, and much like Kee's postmodern historical games, these "position the past as malleable narrative through perspectives, generalizations, causation, counterfactuals, and exaggeration of historical context" (Metzger and Paxton, 2016, 547). The authors do include additional categories as well (Wishistory, Composite Imagination, Borrowed Authenticity, Historical Provenance, Legitimization) but each of these are in some way combinations or edge cases of the three major categories they offer – Monumental, Antiquarian, and Critical.

Specific to the context of games-for-learning, McCall has further refined the definition of historical games to direct educators towards those he believes are best suited for use in the classroom setting or other educational context. These games, which he refers to as "historical simulation games," combine elements of games and simulations and "occupy a middle ground

as games – dynamic, ruled-based and quantifiable conflicts – that provide playable models of a historical event, system, or process" (McCall, 2016, 523). For McCall, at their core, in order to be categorized in this way these historical games "must offer defensible explanatory models of historical systems" (2016, 523). As with the scholars mentioned above, McCall once again points towards the ludic quality of historical games as their unique strength for learning: "the game, and by extension the historical game, alone among media with the possible exception of hypertext, also allows player choices, and some of those choices at least approximate historical choices" (McCall, 2016, 524). Extending from Urrichio, then, it is evident that scholarship has taken his initial distinction between historical representation and simulation and expanded it considerably, while refining the parameters for what historical games are and can be, and the potentials for what they can do.

I will be very brief regarding 'historical game studies,' because its status as an established area of study remains tenuous, despite continuing growth. Certainly, there is now a much greater understanding of what historical games are and how they represent, enact, and engage the past (and players). But an overriding skepticism persists about historical games within academic history, and a stubborn fidelity to text continues to shut out much of popular digital history outside of the most tertiary engagements (such as using Google Books or online archives for example). Chapman highlights this issue in *Digital Games as History*: "the rejection of popular history is often based not only on the idea of the primacy of the written word but also the primacy of the academic word," but he also importantly points out that, "these popular historical forms are how most people engage with the past whether we, as scholars, prefer these kinds of engagements or not" (Chapman, 2016, 8, 13). This is important, because insofar

as there is an area of scholarship called 'historical game studies' it finds its impetus in this point, echoed by many others (Boom et al., 2020; Gilbert, 2019; Houghton, 2016; Karsenti, 2019; Kee, 2014; Kee and Graham, 2014; Koski, 2017 Metzger and Paxton, 2016; Veugen, 2014) that games, along with other popular histories (and especially media histories) have come to dominate public historical engagement in a way that text, and academic history in particular, cannot hope to match. Understanding them better, as media objects, historical objects, interactive objects, therefore becomes paramount, especially in relation to historical pedagogy.

So, what is historical game studies? The scholars mentioned here, in their analysis of what historical games are, and how they work, offer some basic insights. If any consensus exists within this research area, is it that historical games are powerful media objects that engage their players and help to shape their views on history and the past. They are interactive, necessitate player action and input, and, in this way, offer players an immersion into historical worlds and simulations that other forms of media (most especially text) do not. Outside of this, there is markedly less consensus regarding whether historical games represent good or bad history, if and what they can teach about history, and whether or not they should be studied academically or incorporated into disciplinary history as another medium of historical representation and enactment. Spring argues that the "inherently game-like qualities of historical research" make historical games particularly useful tools for historians to test and hone their craft with, whether as abstractions regarding a process or interactions with historical virtual worlds (Spring, 2015, 218). Certainly, Uricchio, whose work in many ways has germinated this growing interest, saw in historical games an opportunity to "subvert the project of consolidation and certainty associated with the former brand of history [positivism]…

predicated as they are on a reflexive awareness of the construction of history" (Uricchio, 2005, 328, 333). The "game-like qualities" to which Spring refers in many ways extends from this initial point – that historians should always maintain an awareness of the moving pieces of historical scholarship, including their own position as the authors of narrative and story. Regarding a firm definition, Chapman contends that historical game studies can be understood as "the study of those games that in some way represent the past or relate to discourses about it" (Chapman, 2016, 16). Working in 2017 with Anna Foka and Jonathan Westin, the three offer this expanded definition of an emerging area of research: "historical game studies is also a series of distinct but overlapping areas and strands of investigation," including "close readings of historical representations," "formal analyses that aim to describe the properties of the historical game form," "research regarding the representation of particular histories," and finally "the history related practices of historical game players" (Chapman, Foka and Westin, 2017, 361). I would add one additional area – research into playing and making historical games for learning – which also includes a small but growing body of scholarship.[2]

Are historical Games Good history?

All of the aforementioned authors, in some way, comment on the positive potentials for historical games to represent and enact history, and to engage players by immersing them as active participants in virtual historical spaces, so I will not belabour the point by highlighting specifics from all of them regarding whether or not historical games are good or bad history (or, perhaps more importantly, good or bad *for* history). Instead, I will include here only some of the

[2] For examples, see Boom et al., 2020; Brown, 2008; Fisher, 2011; Gilbert, 2019; Graham, 2014; Houghton, 2016; Karsenti, 2019; Kee, 2011; Kee and Bachynski, 2009; Kee and Graham, 2014; McCall, 2014; 2016 Squire, 2004; 2008; 2011; Wainwright, 2014; Watson, Mong and Harris, 2011.

criticism historical games have received, in order to illuminate that there remains no firm consensus that historical games are good and can be useful for historians and educators. Writing in 2006, Galloway offers an early critique of historical games (and games as ideological objects worthy of study in general), arguing that games are best analyzed using Deleuzian theories about technologies related to 'societies of control' (1995). As such, it is not the ideological world of the game so much as how it is organized and regulated via the grammar of code to prefigure agency that is important, and thus "the modeling of history in computer code, even using [game designer Sid] Meier's sophisticated algorithms, can only ever be a reductive exercise of capture and transcoding," which means that "history, in [Meier's] *Civilization* is precisely the opposite of history" (Galloway 2006, 103). Put another way – perhaps more straightforwardly – the logic of control has already won, and so historical games and indeed all games, rather than instantiating complex and ideological worlds, simply reify what is already true, that choice is not choice, that agency is prescribed in advance (in code). Of course, this removes the player from the equation and assumes an outcome in advance, which is totalizing and therefore not particularly useful. More apt and direct criticism of historical games can be found in the work of scholars like de Groot (2006; 2016) Rejack (2007) Schut (2007) Hess (2007) Robison (2013) and Potzsch and Sisler (2019). For example, Rejack criticizes popular historical action games like *Medal of Honor*, *Call of Duty*, and *Brothers in Arms* for offering only teleological and linear narratives about the past: "*Brothers in Arms* presents a view of history as a straightforward sequence of events, with no sense of competing interpretations or multiple viewpoints. Each time one plays the game, events unfold the same way" (Rejack, 2007, 421). Rejack is also critical of certain gameplay mechanics such as multiple lives that detract from the

potential for games such as this to achieve historical verisimilitude. These are certainly accurate criticisms of the kinds of games Kee (2011) would categorize as the 'best possible story,' and Metzger and Paxton (2016) would call monumental historical games. Meanwhile, Schut (2007), points out the bias that is inherent in historical games and the way they present history and historical systems: "the people modeled in historical games tend to have highly defined roles, the games tend to present the development of history with a clear chain of cause and effect" (223), a fair criticism of particular kinds of historical games that are largely locked-in in regards to available interactions and stories (even games that appear more abstract and free, like *Civilization*). The obvious retort is that *all history* does this in some way, which means games are hardly unique in this, and indeed Schut is not advocating that historians not consider games, only that they "remember that any historical game, no matter how engrossing, immersive, or fun it is, should only ever be a part of our picture of the past" (Schut, 2007, 231).

A pattern emerges with this criticism, that certain subgenres or examples of historical games delimit the possibilities for intervention such that the history presented in them largely reifies existing dominant linear narratives. For this same reason, Potzsch and Sisler (2019) are deeply critical of *Call of Duty: Black Ops* and its potential to offer a critical engagement with cultural memory: "the game invites a disambiguation of simulated battlefield as well as historical discourse and, as such, reiterates received monolithic cultural frames of war" (22). In contrast, Potzsch and Sisler favourably review a game one of them assisted in producing, *Czechoslovakia 38-89: Assassination* as a good historical game because it includes "a variety of characters with widely different sociocultural backgrounds and political preferences," and therefore "makes accessible a kaleidoscopic image of history as composed of multifaceted,

intimate, and idiosyncratic recollections rather than a linear trajectory" (Potzch and Sisler, 2019, 22). While their criticism of *Call of Duty* is fair, problematically, they have chosen to compare two 'games' (it is not clear that the second game can even be labelled as such) that are completely different in genre and therefore in design, style, and affordances, which seems at best misleading. While *Call of Duty: Black Ops* fits the definition of a monumental history game quite well, centered as it is around great events, conflicts, and historical actors, where the player is thrust into the role of a hero, *Czechoslovakia 38-89: Assassination* is described by the authors as more like an interactive narrative, where gameplay is largely decentered in favour of story and historical information. For this reason, the comparison is less than ideal, because while one game might offer opportunities of a critical engagement with cultural memory more readily than the other, these two games are not attempting to do the same thing to begin with. It would therefore have been better to compare *Czechoslovakia 38-89: Assassination* with another, narrative heavy historical game.

Lastly there is Robison, who criticizes a particular kind of historical game – the historical simulation game – emphasizing many of the features others have promoted as positive for engagement with history and learning (McCall, 2016; Squire, 2004; 2011) and insisting conversely that they detract from the history these games purport to present:

> if a battle proceeds differently in a role-playing situation than it did in actuality… students are not learning history. They may acquire some understanding of strategy and tactics, but if, say, Robert E Lee wins the game version of the Battle of Gettysburg, that teaches students nothing about the real general, the real battle, or the real Civil War" (Robison, 2013, 578).

This first issue with this, much as with Galloway, is that it to appears to be totalizing, reducing all possible experience within an extremely narrow definition of what gets to count as 'history' which pretends as though this subject is not contested when it very clearly is. Additionally, the notion that students learn nothing about history from entertaining or engaging in alternatives and counterfactuals is, frankly, absurd. Stretching all the way to Uricchio, historical games scholarship has continually argued that games offer insight and interactions with the core principles of *contingency*, *context*, and *choice*, the very materials out of which the past unfolds. Counterfactuals, when they are thoughtfully constructed, highlight these features of history explicitly, focusing a lens directly on questions of contingency, accident, chaos, and choice.

History Games and Learning

The most well known example of participant based research on using historical games with students is Kurt Squire's PhD dissertation fieldwork conducted in Boston middle schools with a group of at risk students which he completed in 2004 (and later published in part in 2008 and 2011). Squire's group of participants was small (13 completed the study) but his findings were encouraging. For Squire, what was most interesting about the implementation of the game in a classroom setting (*Civilization III*) were the communities that formed around it, though Squire also notes that after considerable time, students additionally began "using geography and history as tools for their game, and drawing inferences about social phenomena based on their play" (Squire, 2004, 332). This interest in communities of practice has guided Squire's later work on design practices (2008) and on *Apolyton University,* a now defunct online *Civ3* community (2011). Squire's contributions are important, but I want to highlight some more recent scholarship on using historical games in education. McCall has published extensively on

the subject (2012, 2014, 2016), and as previously noted, favours the use of 'historical simulation games' in education that 'offer defensible explanatory models of historical systems'. To this end, in his 2016 article meant to serve as an introductory guide, McCall offers seven guidelines for educators looking to use historical games in the classroom (McCall, 2016, 532-536), ultimately concluding that "key among these practices is the understanding that historical games are texts, interpretations of the past, and therefore should be treated critically by students and teachers" (536). McCall also advocates for a teacher-centered approach, noting that "the teacher serves as an active facilitator, taking advantage of teachable moments," and further that "the teacher is a critical part of any gameplay sessions in class" (McCall, 2016, 534). Earlier work from Wainwright includes another example of integrating historical games into a course on historical theory which "focuses on the use of history theory to inform our understanding of video games and vice versa" (Wainwright, 2014, 580). His course was designed around seven thematic units: Game Mechanics, Economics and Environment, Cultural Bias, World Systems and World History, Determinism and Contingency, Combat and Brutality, and Gender (581). Based on his initial assessment, Wainwright concluded that "video games are an effective tool for teaching complex historical concepts to undergraduates and introducing even non-History majors to advanced theoretical arguments" (Wainwright, 2014, 603).

In contrast to McCall and Wainwright, Lisa Gilbert's research, consisting of interviews with a series of students at a Catholic high school about their experiences playing the game *Assassin's Ceed III*, and their impression of its use of history (and their own sense of history after play), offers some encouragement to a less teacher-centered and more hands-off approach. Gilbert is explicit in outlining this focus in her research, commenting that most

existing studies have “emphasized the importance of the teacher in ensuring student learning,” whereas “the present study focuses on students’ unmediated interactions with the game” (Gilbert, 2019, 112). Gilbert, “asked students to recount historical events from various game characters’ perspectives, reflect on the meaning they found in their gameplay experiences, and evaluate the differences they perceived between their game-play and school-based experiences” (Gilbert, 2019, 117). Two findings are crucial to include here: First, “playing *Assassin’s Creed* influenced students’ perceptions of the past through a visceral lens of lived experience,” and secondly “students often contrasted this portrayal of moral ambiguity with the heroizing narratives they frequently encountered in their social studies classes” (Gilbert, 2019, 119, 128). That is, participants were both influenced on the level of their perceptions about what history is (what it is about) *and* by the representation of historical figures in ways that rendered them *more complex and morally ambiguous as actors*, in opposition to their popular portrayal in historical texts and other media. Interacting with these characters, in this way, opened up the story-space to interrogation, critique, and critical analysis.

In addition to some other small-scale participant studies (Fisher, 2011; Watson, Mong and Harris, 2011) there are a few larger scale studies (Houghton, 2016; Karsenti, 2019) though their results are somewhat mixed. Karsenti, for example, surveyed 329 high school students and their engagement with *Assassin’s Creed* and found that “this video game can make a real contribution to learning,” though again he placed teachers squarely at the centre of this process by noting that, “teachers must tap into its full potential” (Karsenti, 2019, 1). Further, the measures of assessment somewhat mire the bigger picture (not because students assessed themselves, which can be fine) given that the highest impact area, of the five outlined by

Karsenti, was “events” (at 58%) while “cultural aspects” – that is, those most associated with *critical* learning – was at only 4% (Karsenti, 2019, 11). Houghton’s research looked at an online survey completed by 41 students enrolled at a university in the UK, looking to get a sense of how games “have the potential to exert great influence on their consumers’ perceptions of history” (Houghton, 2016, 12). So, while not explicitly about learning, his work is important for highlighting the impact playing historical games can have on how players think about what history is, as he notes “participants often felt that historical computer games had a very strong influence on their understanding of history” and further that this influence rated higher the less familiar the player was with the history they were engaging with (Houghton, 2016, 24-25). Ultimately, the most encouraging results for my purposes come from Wainwright and Gilbert (and also McCall’s framing of using historical games to foster critical encounters with the past), who zero in on the capacity for games to encourage and unlock critical conversations about history and thus the potential for critical historical skills development.

Conclusion

This chapter introduced three areas of scholarship that are essential to the field research I have undertaken for this dissertation. These are: game-based learning, game production/learning-by-design, and historical games. The opening section on game-based learning as an area of scholarship introduced some of the early work by Prensky and Gee, and then moved to a more substantive discussion of how games are best viewed (as ideological worlds), how they contribute to and reformulate our understanding of literacy in an increasingly digital world, and where they fit in to broader conversations about the need for sweeping changes in educational curricula to meet the demands of the twenty-first century

(and adequately prepare learners). This section then zeroed in on ongoing conversations regarding the efficacy of GBL by examining a number of meta-analyses of empirical studies, which both offer insight into what empirical research on GBL has yielded and advocate for the direction future research should take. Next, I examined the literature on game production and learning-by design, focusing on two key areas within this sub-field of GBL – constructionist approaches and production pedagogies. Game production research has long been dominated by perspectives that possess a constructionist orientation, but as this section clarified it is vitally important to consider the limitations of this approach, and to think about game production with a key focus on pedagogy that centers design to meet the needs of students and the demands their world is placing on them in the present. Though, regardless of orientation, this section revealed how *making games* and positioning students as *producers* can have powerful implications for learning, including the acquisition of critical skills. Lastly, I introduced some of the key scholarship on historical games, stretching back to Uricchio and Squire, and growing in more recent years to include a more diverse body of research that has largely left the question of the efficacy of these games as historical objects/representations behind. Historical games scholarship continues to grow, and I have attempted to address many of the key questions that have guided research into these games, and their potential for offering access to, engagement with, and knowledge about the past. Of particular interest to me for my own work are the potential of critical and post-modern historical games, to upend objectivist-empiricist models of history and challenge hegemonic narratives that have become accepted in popular imagination and educational curricula.

In exploring these three areas to provide context for my research and how it fits within these ongoing conversations regarding digital games and learning, I have highlighted a few key perspectives/positions that have been vital in informing my thinking about games and their potential uses in education. First, I believe there is substantial enough empirical evidence and theoretical grounding to state confidently that games can be effective learning objects when they are taken seriously by educators and implemented effectively into learning contexts. It is fair to say that this is in part because games can be deeply immersive and engaging, but it is also more than that. Games introduce learners to deeply ideological spaces. They advance stories and conditions that make arguments and leave impressions about how the world works, and they challenge learners to engage with them, to solve problems, to overcome obstacles, to learn systems, to reconcile affordances and constraints with the possibilities of *play*. When they are positioned as designers and producers, students contend with these challenges in even more explicit terms, as they themselves must consider the choices they make, to tell particular stories, to instantiate particular worlds, to offer particular forms of interaction and engagement in their own games. When I designed the two research projects for my own field work, it was with this perspective keenly in mind. I believed (and still do) that playing critical historical games, and *making* historical games, can challenge students to think about history in a more abstract way and encourage them to think about how history is assembled. That is, that these activities can raise and emphasize questions of historical making and argument in a way that traditional texts often struggle to do, precisely because they invite students to actively participate *in the process* of historical making as players and designers.

Chapter Three: Methods

Introduction

My doctoral research consists of two participant-based projects which unfolded over an 18-month period at two Canadian universities. The first, *Past Stories and Future Worlds: Popular Imagination in Fallout 4*, took place at York University over the Winter and Summer terms of 2019, and involved having participants play the game *Fallout 4* and reflect on their experiences. The second project, titled *Re-thinking History Teaching: Historical Making and Learning in Digital Culture*, took place at Carleton University over the Fall term 2019, and centered around students in a third-year history class taught by me. These students were responsible for designing their own original and interactive historical game as a final project for the course, and data was taken from those projects/students who consented to participate in the research, primarily from a critical reflection document and voluntary interviews that took place after the completion of the course. While each research project was motivated by its own set of considerations, there are three overarching questions which have guided both studies: **1) How do historical games activate/represent history and reveal insights about the processes that underlie historical making and knowledge building? 2) What knowledge/skills, If any, do learners acquire by playing and making historical games? 3) What represents best practices for deploying historical games in educational settings?**

Each project approached questions regarding the utility of historical games in history education and learning differently, but both share an interest in determining best practices for the use of historical media like games in educational contexts. In addition, both projects are fundamentally concerned with the capacity for digital games, whether from the perspective of

production (making a game) or engagement (playing a game), to raise questions for their users about the processes which underlie historical making and knowledge building. For those participants in *Past Stories and Future Worlds: Popular Imagination in Fallout 4,* this process involved playing a triple-A produced counterfactual historical game that represented a Cold War America where the threat of nuclear conflict had become a reality. In navigating this space, participants were given an opportunity to interact with an alternative history that held the possibility for raising questions about (and challenging) the conventional wisdom of accepted historical narratives. Even if the player lacked the requisite understanding of the intricacies of the Cold War period to appreciate how *Fallout 4* challenges the dominant narrative of capitalist supremacy and American triumphalism, they still were invited to play and explore in a virtual world deeply inspired by a particular mid-century aesthetic and counterfactual storytelling that is extremely effective at satirizing and interrogating many of the historical myths most often ascribed to this period in American history, many of which continue to be mobilized in the service of politics and nationalism.

For those that participated in *Re-thinking History Teaching: Historical Making and Learning in Digital Culture*, this process involved having them create their own historical games. Assigning participants the role of designer and placing them within this productive context provided them with an opportunity to think about how systems, design, affordances and constraints contribute to historical making more broadly. History is bound up in a contest between what is available and what is not (which is revealed in the choices that underlie acts of interpretation and argument in historical work), a tug and pull that game design as a process highlights well. In addition, placing the student in the role of designer (and thus educator)

forced them to reckon with the same questions that educators and researchers do when they design or attempt to implement digital content in the classroom. By actively directing the design process, therefore, participants were forced to grapple with questions of content, evidence, process, subject position, goals, argument and interpretation which form the basis of all historical work (and knowledge), while simultaneously maintaining a focus on generating a game that was playable and interesting to its potential users. In the following sections, I will go through how each study was designed and implemented in detail. I am choosing to do this as a standalone chapter because I believe it is important for the reader to have ready access to a detailed breakdown of each study that is not buried in the respective chapters which are committed to them. In those chapters, I may mention general features of the studies again to serve as a reminder, or introduce novel information that is more directly tied to data analysis. However, this chapter is intending to provide a minute description of each research project, how it was designed and built, and how it unfolded.

Past Stories and Future Worlds: Popular Imagination in Fallout 4

This research project was designed over the Summer and Fall 2018 and implemented over the course of Winter/Spring 2019, with recruitment ongoing as well during this period. This project had two phases: a textual analysis of the game world *Fallout 4*, and qualitative participant-based lab study. Phase one was directed towards addressing the question of how *Fallout 4* utilizes the genre of the counterfactual in its narrative presentation (which is outlined in more detail in the *Fallout 4* research study chapter). In addition, the textual analysis provided a foundation for considering how best to deploy the game in a participant-based study that seeks to explore how historical counterfactual games like *Fallout* can be used for the purposes

of history education. This includes considerations of its benefits and limitations, as well as the kinds of historical interventions and questions it makes possible to users. In historical games research, textual analyses are the most common form of research that attempt to offer insight into what historical games do, how they represent and enact the past, how this shapes or delimits the possibilities of interaction with them, and what they might offer the player by way of historical information.[3] The first version of the textual analysis was completed in 2017 (it was later updated and published as a scholarly article in 2018/2019), and a section of it providing context and summary for the game *Fallout 4* is included in the chapter discussing the project.

Phase two, a lab-based study of participants playing *Fallout* 4, included semi-structured interviews (appendix A), a demographic questionnaire (appendix B), pre/post questionnaires about history and historical understandings (appendix C), screen captures of play, and participant-driven reflection in the form of a "travelogue," (appendix D) - a data collection tool modified and borrowed from Taylor, McArthur and Jenson (2012). After the first few participants, a visual primer (appendix E) was also developed and given to participants in order to provide them with context for the period that the game draws from. This participant portion of the research targeted undergraduate students attending York University and Seneca College at York for recruitment. I was interested in undergraduate participants because they (ideally) found themselves increasingly immersed in an academic environment where they faced growing expectations that they would produce work that demonstrates a competency in critical

[3] For examples see de Groot, 2006; Hess, 2007; Kapell and Elliot, 2013; Kee, 2011; Koski, 2017; Potzsch and Sisler, 2019; Rejack, 2007; Schut, 2007; Uricchio, 2005.

analysis as well as capacity to consider disciplinary concerns on a meta-level (i.e. the transition from summarizing what a text says to interrogating how its argument is structured). Given my positioning of *Fallout 4* as a critical historical game that raises questions about disciplinary history and the processes involved in history-making (in denying objectivist-empiricist readings of history as a teleological process always moving towards greater progress, typically defined as the increasing achievement of autonomy, individual liberty, economic capitalism, and the stability of the state), I believed that it was most likely to solicit meaningful engagement from those learners who are beginning to encounter critical content (and face elevated expectations for their own academic work) on a more consistent basis.

Beginning the Winter/Spring term of 2019, I used posters around York University and Seneca @ York to recruit participants for the research. This study did not seek a particular gender or ethnic make-up (outside of mix of female, male, and/or non-binary self-identified players), but I strove to include a representative sample of the York/Seneca student population, while understanding that the sample would be determined to a large extent by interest (in the goals and topic of the study) and the ability to dedicate the requisite time to complete the process. **In total, 17 individuals completed at least part of the study, and 12 of the 17 participants completed the entire process of the study.** Recruitment began in November 2018 and research concluded in September 2019.

The pre and post questionnaires, as well as the interviews and travelogues were used to investigate the second and third questions guiding the research outlined earlier in this section. All of the aforementioned materials provided insight into what, if anything, participants learn about history from playing *Fallout 4*, while the travelogue in particular represented an attempt

to borrow an assessment tool designed ostensibly for a different genre of game and explore whether it is well-suited for assessing user learning in a single-player historical counterfactual game like *Fallout 4*. The travelogue posed a series of questions for participants to reflect upon while they played the game and provided a space for them to submit answers in a multimodal format, using both text and images. These questions asked them to think about the story-space as they explored it, with particular attention to considering the subject of history and history-making. Consisting of text (in the form of answers to a series of questions) and images (chosen by the participant), the travelogue was originally "designed to get a glimpse into participants' domestic play" by "giving them control of what they choose to present to us as researchers" (Taylor, McArthur & Jenson 2012, 134). In much the same way, this study asked users to provide textual and visual answers to a series of questions as they played in order to encourage reflection and gain insight into how a breadth of players internalized the counterfactual story in *Fallout* as it unfolded for them. This follows more closely what Jenson, Taylor and Castell refer to as a 'ludic epistemology,' that seeks to shift the focus from more standardized models of assessment for digital games to a concern with *player experiences* (Jenson, Taylor, Castell, 2011, 29).

In general terms, the study proceeded in the following way: before any gameplay, participants were invited to the lab on campus at York University for the first session with the researcher. In this session, they were given a short pre-play questionnaire that asked questions which encouraged them to think about how they viewed (and understood) the subject of history. For example, questions included:

- Please consider a lesson from history that you remember from school and describe it; why do you remember it? What, if anything, is significant about it?
- What do you know about Canadian involvement in the Cold War?
- Outside of school, where do you encounter history most often?
- What resource has proven most useful for you in learning about history?

These questions sought to uncover participant knowledge in such a way that allowed them to disclose how their particular understandings of history have been shaped and through what means. A short (fifteen to twenty minute) semi-structured interview followed, during which the pre-questionnaire was discussed in addition to several other general questions about history, digital games, and the genre of the counterfactual. Questions included:

- Can you briefly describe your familiarity with history as a subject?
- How would you describe your experience with playing video games?
- Have you ever encountered content that you would describe as a counterfactual or alternative history before?

In addition, during this first interview participants were also asked to watch a short advertisement for the digital game *Fallout 3* (the game universe is the same in each installment of the series, and this was the best example of an advertisement which incorporated the historical setting and themes that I came across) and discuss it with the researcher (question 9: Please describe was is going on in this advertisement. What product is being advertised? How is it being advertised? What stands out to you in particular?). Following the interview, the researcher spent time providing an overview of the gameplay portion of the study and an explanation of the travelogue the participant would be asked to complete.

These interviews made use of the responsive-interview technique as outlined by Rubin & Rubin (2005) in their work on the approach. Responsive interviewing shares many features with traditional qualitative styles in addition to its reflexive format, and this is evident in the author's description of the goals of responsive interviewing:

> a solid, deep understanding of what is being studied, rather than breadth. Depth is achieved by going after context, dealing with the complexity of multiple, overlapping, and sometimes conflicting themes and paying attention to the specifics of meanings, situations, and history (Rubin and Rubin, 2005, 35).

My interest in *Fallout* was in the specifics of user engagement with this game space, the stories it seeks to tell and the questions about history that they give rise to. In order to elicit an understanding of player experience with these concerns in mind, it was critical to focus on deep meaning, and the possibility (even likelihood) of difference in consideration of what is meaningful about the game experience, which a responsive interview style allowed for.

Following this, participants were given the game and the travelogue document, along with a visual primer that consisted of images of mid-century America as well as images pulled directly from *Fallout 4*. I selected this series of images to serve as a comparison and reveal to participants how *Fallout 4* draws from (and is inspired by) this historical period in its own counterfactual rendering of history. Participants were directed to play through the introduction of the game and visit the Museum of Freedom (an in-game location) before being given relatively free reign over how to spend the rest of their playtime in the game, totaling fifteen hours of play on their home machine. Fifteen hours was chosen in order to provide participants with enough to time to reasonably explore the world of *Fallout 4* and become familiar with

some of its story, without overburdening them given their other ongoing commitments (school and work). The participants began this play with an introductory session that took place in the lab (and did not count towards the fifteen hours they were asked to play outside of the lab) which allowed them an opportunity to familiarize themselves with basic game systems, story, and play, and ask any technical questions about the game that came up. These introductory play sessions lasted for thirty minutes, and their play was screen-captured by the researcher. Participants were asked to play between two and five hours per week, and to complete all fifteen hours within five weeks. Game play was spread out in this way to make it more manageable for participants and allow for more flexibility with scheduling. After each gameplay session at home, the participant was asked to take a screen shot of the steam game page that indicated the number of hours played so far. This was implemented to keep participants honest about their game play and avoid potential issues with participants not actually playing.

After completing fifteen hours of play on their home machine, participants were invited back to the lab for the second session to complete a post-play questionnaire, followed by a second, longer (thirty to fifty minutes) semi-structured interview aimed at providing the participant with an opportunity to reflect upon their gameplay experiences. The post-play questionnaire again asked participants questions that encouraged them to reflect upon how they consume and construct history. In addition, it included questions that invited participants to incorporate *Fallout 4* into their responses. Examples of these questions include:

- What elements of gameplay did you enjoy the most, or the least?
- Were there any stories or symbols in the game that stood out for you in particular? Are they in some way historical?

- What, if anything, from *Fallout 4* do believe could be useful for teaching history?
- Has playing *Fallout 4* deepened your interest/altered your perspective on the Cold War, and in what way(s)?

Second interviews asked the participants questions regarding what in *Fallout 4* stood out for them, if and how it could relate to the history of the Cold War, or history more generally, and also about whether they believe that their own views about history and history-making had advanced in any way as a consequence of gameplay. Examples of these questions include:

- Based on your play experience, can you explain what you believe *Fallout 4* is about?
- Are there any features of the story or the virtual world, that you would consider as historical, or historically themed?
- Do you think *Fallout 4* fits within our earlier definition of a counterfactual or alternative history game?

These interviews made use of the same responsive-interview format as the initial, shorter interviews. The second visit to the lab ended with participant's completing a short demographic questionnaire and the submitting their completed travelogues to the researcher. Upon completion of the study participants were entered into a draw for a 75-dollar Amazon gift card, retained the copy of *Fallout 4* that they received for the study.

Data analysis for *Past Stories and Future Worlds: Popular Imagination in Fallout 4*

After the active research phase of the study concluded, I hand-coded the data to organize it for analysis. In order to assess whether participant interaction with the Cold War/mid-century aesthetic and counterfactual story of *Fallout 4* encouraged them to think about the history presented in the game (and by extension history generally) more critically, I

devised three categories for plotting data and measuring outcomes. These are as follows: 1) the participant clearly expresses a critical view of history, and relates this to their gameplay experiences, 2) the participant expresses a partially or limited critical view of history, and relates this to their gameplay experiences, and 3) the participant does not demonstrate a critical view of history. Using color coding, I analyzed participant responses on the various study instruments and assigned them to one of the three categories. In compiling and analyzing this data, I tried to take a full view of each participant and account for each activity they completed. If the participant was able to express a critical view of history in either the written documents, or the verbally in the interview, but not in both cases, they were still included in the category designated for those who **clearly express a critical view of history, and relate this to their gameplay experiences**. This is because I recognized that different participants (and different learners) possess different strengths, and what matters most is that they are able to clearly articulate their thinking about history in one of the available formats. These categories are formulated with a concern for demonstrating the skills that are most necessary to engage with history and historical content thoughtfully and productively.

A **critical view** of history is one that expresses a clear and confident understanding of how historical work is shaped not just by evidence and context (though these are important) but also by interpretation, argument, power, ideology, subject position, class, race, gender, and sex. To clarify, at least within the context of the *Fallout 4* study, because participants were not expected to possess an extensive background or conceptual lexicon in history, if they could properly identify the epistemological elements of historical work and insinuate authorship as part of this, even if they did not extend this to an acknowledgement of their own subjectivities,

I included them in this first category. The second category is more straightforward, though it remains mindful of the likelihood that the participant is attempting to discuss and explain history using primarily non-expert language. This category refers to data where the participant expresses **a limited or partially critical view of history, and relates this to their gameplay experiences**. Responses here demonstrate that the participant is thinking about history and asking questions, which evidences that they are on the right track to expressing a critical perspective, without fully or clearly articulating such a position. The final category for data involves participant responses that **do not demonstrate a critical view of history** related to gameplay. Data included here may accurately point out how features of the game world resemble in some way the aesthetics of the mid-century period, or correctly identify the core conflict in the game as a speculative take on the Cold War period, but they do not actively raise questions about why the game is presenting this history, or how it might contrast with our understanding of this period.

Re-thinking History Teaching: Historical Making and Learning in Digital Culture

This research project was designed in the Spring of 2019 and implemented in the Fall of 2019. It was conducted in partnership History department at Carleton University, where I also worked as a contract instructor. In addition, this project was funded by the Scholarship of Teaching and Learning, which helped to support the purchase of software, and the hiring of a research assistant whose role was to collect and maintain consent forms, conduct voluntary interviews with participants, and take observational notes in class. This project took the form of an interactive history course that asked students to engage in critical historical making as they completed assignments that were related to, and ultimately resulted in, the design and

presentation of their own original historical games. Whether are not students consented to participate in the research by granting access to their data to the researcher, all students enrolled in the course HIST/DIGH 3812A “Histories in Digital Media and Popular Culture,” (for course outline, see appendix F) were tasked with a term-long project that asked them, working in groups ranging from 2-5 participants to produce their own historical games.

This course stressed a mixture of embodied and experiential learning, wherein the student had agency over tailoring assignments in such a way as to assist them with their final project. Models of assessment for the course accounted for the transmedial nature of work that was done (for example the **critical reflection document**, which in addition to providing key data for the research, served as a self-assessment tool). Participation was weighted to reflect that students were also responsible for fostering robust discussion and completing tasks in class meant to hone their historical thinking and media literacy skills. This course sought to establish the connection between digital history, historical making, and historical learning in such a way that students would begin to see the work that they do as contributing to ongoing conversations in historical scholarship, and between historians and the public. While recruitment was active, over the first five weeks of the term, a total of 25 students registered in the course agreed to participate in the project, out of a total of 53 students enrolled in the course. By the end of the term, 20 of these 25 remained in the course, and thus data was collected for 20 participants. Interviews were voluntary, and of the 20 remaining participants, 8 met with the research assistant for interviews after the course was completed. Participants consist of a mix of history and non-history students, both male and female (self-identified), ranging in degree progression from second to fourth year. Recruit for the research began in

September 2019 and the active phase for participation ended with the conclusion of the course in December 2019.

No specific tools were used for recruitment in advance of the course for the study, though a disclaimer was placed in the course outline at the request of the Carleton ethics committee to let students know that the course would simultaneously run a participant research study which students could agree to participate in if they wanted. Students in the course were introduced to the research project in the first lecture by the research assistant, while the course instructor and principal investigator, myself**,** was absent from the room, to avoid any potential conflict. The research assistant introduced the project, its interests and goals, their role in the research as an assistant to the PI, the role that students in the course would undertake as participants if they consented to participate, and a timeline for the project. Finally, the RA introduced the project, and the consent form which explained to the students that after the course was completed, and final grades are submitted, these forms would be de-coded for the principal investigator, so that I could separate data for analysis on the basis of consent. It was stressed to the student that the PI would not know who had chosen to participate in the research until after the course/grades were finalized, and it was made clear to them that consent was voluntary, ongoing, and could be withdrawn at any time with zero risk of penalty. Following this, the research assistant handed out and collected consent forms from those students who agreed to participate. These forms were coded and de-identified before they were given to the instructor, so that I could not know who had chosen to participate and who had not. This was done to eliminate the risk of special

attention or preferential treatment towards any students on the basis of their participation, and to allow the course to proceed as a standard third year academic history course.

Participants were students in the class, and research data came primarily in the form of a critical reflection document (appendix G) that each individual student was responsible for completing as part of their final assignment for the course. To clarify, whether or not the student agreed to participate in the research, all students were responsible for completing this document, which accounted for 10% of their final grade in the course (the game itself was worth 30%), and provided them with an opportunity to discuss their work within their group as well as group dynamics. In addition, this document asked the student to describe how they undertook the project, the kinds of questions they asked and those that were raised over the course of the work, and their takeaways from the assignment. As stated earlier, there was also an option to participate in a voluntary interview (appendix H) to discuss the assignment after the term had ended and final grades had been submitted.

Rather than divorce content from play and view them each separately, the reflection document echoed the position outlined by Metzger and Paxton (2016) in their research on a taxonomy of historical games, regarding the need to consider game design and its implications for play as an essential component of historical games. “All games have rule structures,” argue Metzger and Paxton (2016), and “all rule structures require design choices, and design choices inherently will reflect certain ideological conceptions of the world today and its connections to the past” (557). Echoing Squire (2011) the authors contend therefore that, “players are always working within constructed and ideologically laden game worlds,” and, most importantly, that “their choices and background affect their experiences of history

in games and the historical narratives they construct in playing them" (Metzger and Paxton, 2016, 557). Examples of questions that the critical reflection document asked students include:

- what topic did you and your group decide to pursue for this assignment, and why?
- How did you address challenges that emerged while working with the software?
- What questions did the assignment raise for you about your topic?
- This assignment asked you to consider how history is made. Can you describe how you encountered and engaged with this question as you worked through the assignment?

Following this, participants were given an opportunity to volunteer for a short interview that asked them to expand upon their thoughts and provided them with an opportunity to share additional insights.

These interviews lasted approximately 40-60 minutes in length, and examples of the questions participants were asked include:

- Can you provide a brief overview of your final project for the course?
- Before this course, had you ever been given an assignment that incorporated the use of design software or digital media in some way?
- Can you briefly describe, from your perspective, how you think history gets produced by professional historians in the field?
- What did you like about the assignment? Is there anything you would change, or improve?

The consent form handed out to participants by the RA included a section where the participant could agree to be interviewed and audio recorded. Students that wished participate in the study, but did not wish to be interviewed, were welcome to do so as well. Participants were not asked to complete any additional work outside of the purview of the course as it was designed by the instructor, other than a short demographic questionnaire (appendix I) that was sent out to participants to be completed and returned to the RA after the completion of the course. Of the 20 participants remaining by the end of the term, 18 completed the demographic questionnaire. Finally, on three occasions over the term, the research assistant sat in on the lecture for that week and took observation notes (appendix J) which were used as a supplement to the other data collected for the research. No individuals are identified in these observation notes, which were intended to provide general insight into student engagement with the material being presented in the course. In sum, therefore, the research for this project consisted of four primary instruments: the critical reflection document, voluntary sit-down interviews with the research assistant, a short demographic questionnaire, and three sets of observational notes taken by the RA over the duration of the course. Once the course was completed, and final grades were submitted, the principal investigator was granted access – as outlined in the consent form – to the data of the participants as well and their identities, so that said data could be properly labelled and organized for analysis.

Data analysis for *Re-thinking History Teaching: Historical Making and Learning in Digital Culture*

As with the previous study, once the active research phase had concluded; and, once the course was complete and final grades were submitted and approved, I hand-coded the data from the reflection documents and voluntary interviews for analysis. In this case, data was organized along two major categories, each with a number of cognate subheadings. The first major category was concerned with how participants described their engagement with the work that they undertook, and whether they were able to understand and identify its relationship to historical making in a clear and significant way. General enthusiasm was not enough to constitute a positive response, as this category needed to link participants' interest in the work with its broader purpose, grounded as it was in illuminating the processes that underlie the doing/making of history. The second category concerns whether in their responses, the participant was able to demonstrate an understanding of the kinds of critical questions – and the skills which are required to engage with these questions - that the assignment was intending to raise about history and history-making. Crucially, for the purposes of the research such responses needed to be directly linked to having undertaken the work of the final project. That is, it was necessary that the participant indicate that working on the project, and answering the questions outlined on the reflection document was at least partially what motivated their thinking about these more critical and abstract historical questions.

In both cases, I have outlined a range consisting of three possible designations in relationship to the two major categories under consideration in order to cover the breadth of participant data and responses. In the first case, regarding participant engagement and their

capacity to view the work that they did within a broader context of historical making, the three classifications for responses that I have devised are as follows: 1) deep/meaningful engagement, responses that both describe active engagement with the work and accurately position it within the context of 'doing history,'; 2) partial/qualified engagement, or responses where it remains unclear how the participant engaged with the work and whether they viewed what they did as participating in the process of making history; and 3) not engaged, or responses which may signal engagement and accurately describe the processes ungirding game design and implementation, but which do not link this work in any clear way to doing or making history. For the second category, concerning whether participants demonstrate a positive link between having undertaken and completed the final assignment and an engagement with the more critical questions about history that the assignment and reflection document intended to raise, the three categories for participant responses are as follows: 1) demonstrates a knowledge of critical skills that is linked to completing or describing the final assignment in the reflection document; 2) demonstrates a limited or partial knowledge of critical skills that is linked to completing or describing the final assignment in the reflection document; and 3) no evidence that participating in the course and completing the assignment has had any positive effect on critical skills development.

Conclusion

This chapter has introduced the two major research projects that form my PhD fieldwork, conducted over a roughly 18-month period between the Spring of 2018 and the Winter of 2019. I have attempted to introduce each project separately, in order to account for its particularities and to explain how each was initially considered and shaped by the research I

was doing simultaneously on game-based learning. While they share a core concern with digital games in history education, and pursued the same major research questions, it is important to also consider these two projects separately, because they approached the subject of historical games – and historical games for learning – in distinct ways. Most obviously, *Past Stories and Future Worlds: Popular Imagination in Fallout 4* functions primarily as an instructionist intervention while *Re-thinking History Teaching: Historical Making and Learning in Digital Culture* represents a constructionist one. Simply put, one project focused on the possibilities for teaching history via games by having learners play a historical game and reflect upon their experiences while providing them with some scaffolding and guidance, while the other was more interested in the potential for learning as it relates to *actively producing* history via the making of a historical game. In this second instance, the course provided context and information on digital history, but, as was stated in the introduction, students were largely left on their own to come up with their own ideas and design practices for implementing their vision.

However, in spite of this important distinction, these projects do work together in attempting to address and provide insight into the core questions that have guided this research. In fact, I would argue that including both perspectives *strengthens* any learning outcomes that the data presents, and provides an opportunity to consider whether one approach might work better than the other, or at least the extent to which each provide different opportunities for learning that is more or less observable in the data from playing games as distinguished from that of making games. In order to begin assessing the full range of possibilities for historical games and game production, this research introduces two projects

that come together in a conversation about what historical games do, what kinds of access and interactivity they offer of the past, and how they formulate historical events and knowledge. It does not view the perspectives of play and production as fundamentally distinct, but rather as inextricably linked together in the matrix of relationships that inform each. Playing a sandbox role-playing game like *Fallout 4* involves choices of design. And as the player weaves together a story out of the disparate narratives that exist in this virtual space, they very much do *produce* a story that reflects their particular gaming experience, and which is predicated on the choices they have made. Designing a historical game likewise requires an attendance to ludic needs of potential players; what will they enjoy? What will they engage with? How will this history speak of them? *What do I want them to do, to see, to learn?* In light of this, considering both perspectives together is not only beneficial, but I would argue also necessary, so as to provide a more complete assessment of what historical games do, and what they offer educators and learners.

Chapter Four: *Past Stories and Future Worlds: Popular Imagination in Fallout 4*

Introduction

This research project initially came together in the Spring of 2018 after many conversations with my supervisor, Dr. Jen Jenson. Originally, I had entered the Communication and Culture program at York by proposing to conduct ethnographic research on the MMO game *World of Warcraft*, to explore how this game world engages with and presents historical content (and player impressions of this immersive experience). However, after encountering *Fallout 4* myself in the Fall of my first year at York (2016) I began to consider a change in direction, which was ultimately decided upon while working on my PhD proposal. After working on a few participant based studies during my first few years in the PhD program as a research assistant, and immersing myself in the literature on digital game studies, game-based learning, and historiography/history education for my comprehensive exams, I settled upon a major research project for my PhD fieldwork that would centre upon the critical (and counterfactual) historical game *Fallout 4*. This study was broken into two parts, a textual analysis of the game in order to illuminate how it enacts and raises critical questions about history, and a participant component that involved having subjects play the game and reflect upon their experiences. In conducting this research, I had two goals in mind. The first, was to contribute to a broader and ongoing scholarly discussion related to the uses of new media – and in particular digital games – in history education, and especially in the development of critical skills related to historical scholarship. The second, was to conduct research specifically on **historical skills** learning through digital games that includes participant-driven data, given that much of the research on historical games consists of textual analysis and auto-ethnography, while there is less that

explores the possible uses for these games in history education and historical skills development via qualitative study.

The textual analysis for *Fallout 4* was completed in 2017 (a revised and updated version was completed in the Fall of 2018, and published in 2019), and intended to introduce and contextualize the game world of this counterfactual historical game. While it is not my intention to cover this textual analysis in full, I will describe the game briefly here, for anyone unfamiliar with it. *Fallout 4* opens in the home of the protagonist (male or female, player choice) in the year 2077. The home is located in an idyllic suburban community called Sanctuary Hills and both the layout and name of the community are plainly reminiscent of the kinds of intentionally designed urban utopias that began emerging in America in the mid-twentieth century. Indeed, one quick scan of the home and neighboring community (see figures 1 and 2) is enough to locate the aesthetic of this futurescape firmly in a mid-twentieth century consciousness.

Figure 1 - kitchen in Sanctuary Hills, pre nuclear event.

Figure 2 - Sanctuary Hills, pre nuclear event.

The inclusion of the standard metal mailbox and white picket fence, as well as a kitchen full of classic metal appliances, attests to the projection of a nostalgic historical aesthetic into the future (November 2013). Indeed, *Fallout's* official wiki makes clear, "for most of human history, the *Fallout* universe and the real world shared a common timelime" (Fallout Wikia, 2017). The primary break with the present timeline occurs immediately following World War Two, where in the *Fallout* universe an explosion in nuclear technologies ushers in a "techno-utopia," as Joseph November (2013) refers to it in his own work on *Fallout 3* (298). The focus on nuclear innovation also stymies other projects, so for example in the world of *Fallout* the transistor and microprocessor are never invented, resulting in the future world that largely maintains a mid-century aesthetic. Talking servant robots are tubular rather than anthropomorphic, and nuclear powered cars sit in driveways while the latest computer technologies continue to be big and unseemly (see figure 3).

Figure 3 - computer terminal, Fallout 4, post nuclear event.

Importantly, this contrast between the future setting of *Fallout* and its dated aesthetic style, forms one centerpiece of the counterfactual presentation made by the game. November's work on *Fallout 3* in particular (all games in the *Fallout* universe occupy the same timeline and worldscape) argues that one counterfactual in *Fallout* is contained in the presentation of this 'what-if' question regarding what the future might have looked like if America had continued its non-military, technology-centred nuclear project, following the end of the war (pp. 301-304). For present purposes, what is most important is a recognition of the way that *Fallout 4* is stylized as a futurescape that is rooted in mid-century visions of a 'techno-utopia,' however far this game world actually comes to satisfying this utopic desire notwithstanding. And, how this internally logical alternative future can provide a critical mirror to see the contingency of the historical period it intends to represent.

Of course, the idyllic suburban image that opens the game quickly shatters for the player. First, a representative visits them from 'Vault-tec,' a company centred on the production of massive fallout shelters in preparation for a potential nuclear war. There is, after

all, still a Cold War between America and its communist enemies in *Fallout*, as the nuclear technology race makes sure to keep tensions flared between countries long into the twenty-first century. Clearly nervous, the Vault-tec rep tells the player that because of their distinguished service (as a veteran) they have been granted a place in vault 111, while also issuing a warning that the end is near: "Vault-tec Rep: If you'll excuse me language. The big kaboom is… it's inevitable, I'm afraid. And coming sooner than you may think, if you catch my meaning" (Bethesda Softworks, 2015). Almost immediately after the player accepts an offer for a place in the vault, the TV begins issuing reports of explosions all over the East coast, confirming that nuclear war has begun. The player is ushered from their home and towards vault 111, where they are (unknowingly) cryogenically frozen for some 200 years, awakening in the late 2200s, when the game-story begins. Set in the Boston metro, and paying homage to historical Massachusetts landmarks (in places like Lexington, Concord, Cambridge, and Boston itself) *Fallout 4* offers the setting of an America in the twenty-third century that has been devastated by total nuclear war, and follows the player as they explore and attempt to bring some semblance of stability to the violent 'wastelands'.

Fallout 4 unfolds in a variety of historical sites in Massachusetts (Concord, Lexington, Boston), which serve to anchor the main story of the 'lone survivor,' the avatar the player controls. These virtual-historical landmarks and storylines serve as the backdrop for the major tension at work in the game, one between the hopeful optimism associated with forging a new path forward and utter despair at the state this future virtual world. At one and the same time, then, the game combines real historical elements with a fictionalized reimagining of the outcome of the Cold War (the 'Cold' War goes hot) to present a critical rereading of Cold War

experiences. In *Fallout 4*, the implementation of a counterfactual story offers a rejection of the popularized narrative of American supremacy triumphing over Communist forces to present the player with a more nuanced interpretation of some of the internal and external tensions that came to define the Cold War period (i.e. cultural malaise, economic instability, the growth of a military-industrial complex, far-reaching expectations for the development of future technologies). This conflicting presentation of histories both real and imagined provides an opportunity for the player to experience and interact with the game critically as a counterfactual reimagining a real historical period. The motivating questions at issue here are not about whether *Fallout 4* can provide knowledge about the Cold War period that it borrows from (which is not to say that this is unimportant), but, rather, how the generation of a distinctively *counterfactual* game world, and user interaction with this space, can raise broader questions about the production of historical content and knowledge (i.e. what is history? Who writes history? Why? For whom? Etc.)

The Counterfactual in History and in Digital Historical Games

In history, the counterfactual is a genre that normally focuses on a 'what if' scenario with regards to a specific historical event, person, place, period etc., and tries to imagine alternative outcomes to those inscribed in the historical record. For example, a counterfactual might ask 'what if Hitler's planned invasion of Britain had taken place and been successful,' and then pursue this question using the same historical materials and methods, as well as conjecture informed by those methods, as another historian might use in discussing the actual historical events. Counterfactuals in history emerge out of a larger tradition that seeks to question the nature of historical change and upend notions of linearity and objectivity that

have tended to legitimize 'ways of being' as the inescapable outcome of a neatly unfolding past. This is not to say, however, that they have or do enjoy a privileged position in the hierarchy of historical practice. Up until the cultural turn and the emergence in postmodernism of a concern in history with its narrative form (White, 1973; Lyotard, 1979) counterfactuals were at best regarded skeptically if not outright dismissed as anachronisms, not histories. Indeed, writing in his seminal *What is history?* E.H. Carr (1964) referred to them this way: "these suppositions are theoretically conceivable; and one can always play a parlour game with the might-have-beens of history. But they have nothing to do with… history" (p. 97). E.P. Thompson (1978) similarly dismissed counterfactuals as "unhistorical shit" (p. 300) while Michael Oakeshott (1933) claimed that when events are treated counterfactually they "cease to be historical events," (pp. 128-145).

However, with the work of Hayden White, Jean-Francois Lyotard, Michel Foucault, and many others, the empiricist-objectivist view of history (often expressed in positivistic terms) has largely retreated in academic scholarship, with new forms like micro, cultural, Marxist, and feminist history emerging in its place. These perspectives have challenged the traditionally dominant tendency in history to write the past as a story of national or cultural progress, or to present history as teleological – one great movement towards a determinate end. Instead, they are interested in the tensions that exist within the production of history as a discourse; that is, in understanding how the policing of knowledge about the past and the stories that get told establishes and maintain hierarchies of power. Particularly crucial in the growth of the counterfactual and its gaining traction in historical scholarship was the publication in 1997 by Naill Ferguson and other contributors of *Virtual History*, perhaps the first full-throated defense

of the counterfactual-as-history offered up in such a format. In it, Ferguson argues that "there is no privileged past," rather, "there is a multitude of pasts, all equally valid… at each and every instant of time" (Ferguson, 1997, 1). As such, the linear model of history that has long been suggested by objectivist-empiricist scholarship stands starkly at one side of the spectrum in a debate about the knowable past that has become increasingly complex, in modern historical theory.

The work of historian philosophers has thrown into sharp relief the utter implausibility of a 'grand narrative' understanding of history, arguing instead that history (as with everything) is produced by and produces structures of formal style, agency, power, and relationships that deny the capacity for a singular vision of the past to take hold (Lyotard, 1979; White, 1973; Foucault, 1977). Ferguson infuses this understanding of contingency in his discussion of history in the following way: "the reality of history, is that the end is unknown at the beginning of the journey: there are no rails leading predictably into the future, nor timetables with destinations set out in black and white" (Ferguson, 1997, 70). The counterfactual then, serves simultaneously as a thought experiment and a corrective to the tendency for analysis to fall back on an empiricist-objectivist style. Though the use of alternative histories and counterfactual constructions of the past remain uncommon in historical discourse, their utility has become less subject to the fevered tensions and dismissal that once plagued the practice. This is due in large part to the careful way in which Ferguson and others have laid out particular rules for the writing of historical counterfactuals that constrain the genre's most outlandish potentials. For instance, Ferguson argues that, "we should consider as plausible or probable only those alternatives which we can show on the basis of contemporary evidence that

contemporaries actually considered" (Ferguson, 1997, 86). Understood in simple terms, this highlights the distinction in a potential historical thought experiment between, say, whether Hitler had successfully defeated Britain in 1940-41 (which was a very real possibility) and whether Napoleon would have defeated Wellington at Waterloo had he only had a couple of C-three Leopard tanks (an obviously untenable consideration). By reigning in the parameters of what can constitute a useful and potentially insightful counterfactual investigation from a superfluous one, Ferguson and others have helped to legitimize a genre of historical analysis and writing.

Shifting to the position of the counterfactual in digital representations/enactments of history, Johannes Koski (2017) points out in his work on *Valkyria Chronicles*, a counterfactual historical game about the Second World War, that one of the critical benefits of the counterfactual is that it lays open to the player many of the questions regarding the ideological underpinnings that motivate historical making:

> *Valkyria Chronicles* is about history-in-the-making, about the transformation of events into history, and about how they are retold to those who come after the events transpired. The player gets to see in some limited ways the subjectivity of history at play; how the choices we make end up affecting what gets written down (Koski, 2017, 409).

This also addresses one of the key questions that scholars who work on historical games are quick to point to in their criticisms of these games, by revealing how games like *Valkyria Chronicles* stake a position that denies the possibility of objective interpretive positioning wholesale, instead acknowledging that the historian-as-individual inevitably brings a unique

subjectivity to any investigation (in history or any other subject) that they pursue. It is often cautioned that playing an historical game can cloud an individual's understanding of the 'pastness' of the past, because they are injected into history as an actor and are therefore more inclined to engage with and internalize history in a personalized (rather than neutral) way. However, the satirical and openly playful approach that counterfactual games take to representing the past works to dispel some of the concerns scholars have about students using games as a means of approaching or accessing the past. What is being interacted with in these games are not real historical actors or concrete historical settings, but rather historically rich worlds that challenge and raise questions about hermeneutical frameworks of historical making. That is, about how it is that historians come to interpret the past in particular ways, and more importantly why this might be so.

In *Fallout 4,* the genre of counterfactual is used to throw out assumptions about mid-twentieth century culture and look instead at other possible outcomes, had history unfolded in a different way. Outside of the game world, in the post-Cold War era, the narrative that American nationalist history latched onto quickly became one of capitalist (and American) domination over communism, where the outcome of neoliberal historical progress was always clear and a new global culture grew out of the supremacy of that unique brand of American consumerism. As Francis Fukuyama (1992) famously proclaimed in the wake of the collapse of the USSR: "the twin crises of authoritarianism and social central planning have left only one competitor standing in the ring as an ideology of potentially universal validity: liberal democracy, the doctrine of individual freedom and popular sovereignty" (Fukuyama, 1992, 42). For Fukuyama, the fall of the wall in Berlin signaled the end of history's most profound struggle,

a conflict he described as the "problem of recognition," (Fukuyama, 1992, p. xxi). In its place, neoliberal democracy and capitalist economies offered the closest possibility to a 'universal ideology' that could ultimately settle the issue of personal freedom and individual recognition. In providing an alternative future landscape, *Fallout 4* throws into sharp relief the reality of the anxieties that characterized the era, and further denies the construction of history to suit capitalist economic and geopolitical interests. Games like *Valkyria Chronicles* and *Fallout 4* generate worlds that raise questions regarding historical contingency, bias, ideology, and power by admitting openly that they serve as playful stories related to the past without claiming to be faithful imitations or reenactments of a period or place(s) in history. This makes them no less impactful as sources for historical insight. Instead, they propose questions about the discourses and discipline of history and its study, by troubling conventional wisdom and accepted narratives that have become rehearsed in popular media and in the classroom. Put another way, the point of focus becomes not whether *Fallout* can teach the user about the Cold War in vivid detail, but rather what this story – borrowing heavily from a particular interpretation of the Cold War period – reveals to the user about the nature of historical knowledge and the processes that underlie its production and legitimization.

Developing the Study

Much of the specific detail of this research study is outlined in the methods chapter, so I will provide only a brief overview here of how the study was developed. At the same time as the research and writing for the textual analysis was underway, and over the Summer and Fall of 2018, I began to design the participant-based portion of the study. This research took place at York University, and involved participants from York university, as well as Seneca @ York

campus (College). While working through the ethics process with York, the instruments that were designed and ultimately included in the study consisted of written observations of play, semi-structured interviews, pre and post questionnaires about history and historical understandings, screen captures of play, and a participant driven reflection in the form of a "travelogue," which is a data collection tool borrowed from Taylor, McArthur and Jenson (2012) and modified for this study. Taken together, the textual analysis and participant components of the research were framed around three primary questions: **1) How do historical games activate/represent history and reveal insights about the processes that underlie historical making and knowledge building; 2) What knowledge/skills, If any, do learners acquire by playing and making historical games; 3) What represents best practices for deploying historical games in educational settings?**

Recruitment for this research was open to anyone who contacted the PI and asked to participate, though I was specifically hoping to (and did) get a number of undergraduate students as participants. I had a specific interest in undergraduate students because of a desire to collect data from individuals who were (at least hypothetically) in the process of transitioning from more foundational (high-school) to higher order (university) intellectual demands. Ideally, these students found themselves increasingly immersed in an academic environment where they faced growing expectations that they would produce work that demonstrates a competency in critical analysis as well as capacity to consider disciplinary concerns on a meta-level (i.e. the transition from summarizing what a text says to interrogating how its argument is structured). Given my positioning of *Fallout 4* as a critical historical game, that raises questions about disciplinary history and the processes involved in history-making, I believed that it was

most likely to solicit meaningful engagement from those learners who were beginning to encounter critical content (and face elevated expectations for their own academic work) on a more consistent basis. Finally, I was interested in gathering data from different kinds of players from a variety of academic backgrounds. Therefore, the study was open for individuals of all levels of expertise in gameplay (including individuals familiar with *Fallout 4*, and those unfamiliar), as well as students of any academic background (in terms of type, year and subject). This study did not seek a particular gender or ethnic make-up (outside of mix of female and male self-identified players), but strived to include a representative sample of the York/Seneca University student population, understanding that the sample would be determined to a large extent by interest (in the goals and topic of the study) and the ability to dedicate the requisite time to complete the process. Recruitment started in the Winter/Spring of 2019 and consisted of a series of posters that were put up across the York campus (and Seneca at York) advertising for the study. Appointments for the lab began being scheduled in March of 2019, and data collection was completed by the Fall of 2019. In total, **seventeen** individuals participated in at least a portion of the study, and **twelve** completed the study. Ten of these participants came from York University, while seven came from Seneca at York College. Of the twelve that completed the study six came from York University, and six from Seneca at York College; three self-identified as female, while nine self-identified as male.

One final point I would like to mention in this section, is that unlike the Carleton research study, this project represented a first attempt by myself to conduct this kind of research on my own, and was therefore prone to issues that are unique to undertaking this kind of research as the principal investigator for the first time. For example, after the first few

participants came into the lab for the first time, it became clear to me that individual knowledge of the Cold War was minimal at best, and therefore that in order to reveal how *Fallout 4* generates a game space that takes advantage of the aesthetics of the mid-century and Cold War period it would be necessary to provide participants with an additional visual aid in the form of a primer. Beginning with the sixth participant to come to the lab, every subsequent visitor was given this primer to assist them in building a visual frame of reference for understanding the historical aesthetic of the game. This primer consisted pictures taken from the game world, and from the mid-century which were fixed side by side to show their resemblance. In addition, an interview question was added after the first few participants had already undergone their first visit to the lab. This question involved having the participant watch an advertisement for the digital game *Fallout 3* (the game university and timeline are the same, and the *Fallout 4* advertisements were not as richly detailed as this one) and respond to a series of questions about it. Again, the idea behind this question was to reinforce a visual connection between the aesthetic of *Fallout* and the mid-century/Cold War period. While I do not think that these kinds of adjustments are entirely unexpected, or that they fundamentally altered the goals/direction of the project, they are important to mention in order frame this project as a first attempt at conducting this kind of research.

Data Types - What Worked and What Didn't

Before introducing the categories used for data analysis, I want to speak briefly about the challenges that this breadth of data posed, as well as reflect upon the relative success of the various research instruments. Data collected from participants, as mentioned above, consisted of responses to interview questions, the pre and post-play history questionnaires, the

demographic survey, and finally the travelogue document that participants were assigned to complete on their own and bring with them in their return visit to the lab. There was also data from video screen grabs of participant play in the lab, screenshots sent to the researcher and observation notes made in the lab. The data that is included in this chapter for analysis consists of information pulled from questionnaires, interviews, travelogues, and the demographic survey. Participants screenshots and gameplay video captures were determined not to contain relevant information related to the core research questions guiding the study.

Participant engagement with the various research instruments was mixed, which added complexity to data analysis, as I expand upon in the next section. Some participants were more comfortable responding to the questionnaires, and provided considerable detail, while others included only brief responses to the questions, but gave longer and more detailed interviews. Finally, some took advantage of the travelogue document to provide a combination of textual, visual, and audial responses to the questions it posed, while others submitted a short document without visuals and consisting of only brief bullet point responses. These variations in participant engagement are in no way a reflection upon any of them, and should not be read as such. In devising the research, I had sought to cast a wide net so as to collect more types of information that could prove interesting and insightful, and a consequence of that design quirk is that there was simply a lot of data to pour through, and a considerable burden placed on participants to do this work. Ultimately, the travelogue and the interviews conducted with participants were the most likely to yield meaningful insights and information. I believe this is because both were considerably more free-form than the questionnaires (despite my intentions), and so provided participants with a greater opportunity to expand upon their

experiences. The questionnaires are certainly useful, but their rigidity resulted in a tendency to treat them more as mini-quizzes than as open ended questions, and so responses had a tendency to follow a pattern, though an interesting one that I will talk about in another section. Certain questions on the post-play questionnaire did prove important for gathering a complete picture of participant thinking after playing the game, most especially two which asked whether *Fallout 4* makes any arguments about history, and if *Fallout 4* has any value in teaching (questions 4 and 5 related specifically to the game, and asked after play). In analyzing this data, I have attempted to be mindful that participant engagement was often uneven, and so all collected responses from every source have been analyzed in order to place their responses into one of three categories outlined below.

Definition of Categories

In order to assess whether participant interaction with the Cold War/mid-century aesthetic and counterfactual story of *Fallout 4* encouraged them to think about the history presented in the game (and by extension history generally) more critically, I devised three categories for plotting data and measuring outcomes. These are as follows: 1) the participant **clearly expresses a critical view of history**, and relates this to their gameplay experiences, 2) the participant expresses a **partially or limited critical view of history**, and relates this to their gameplay experiences, and 3) the participant **does not demonstrate a critical view of history**. A quick note, however, before I break these down in some detail. In this project, user data comes primarily from five sources: a pre-play interview and questionnaire, a post-play interview and questionnaire, and the travelogue document. I intend to detail these instruments in the next section, but I want to mention them here because their breadth had a real and significant

affect on the organizing and categorizing of data. Unlike my other research project, discussed in the next chapter, which relied primarily on a single instrument for collecting data (along with supplementary interviews), providing participants with multiple ways to respond to questions about history and gameplay, as I did in this study, significantly complicated the process of determining whether playing the game encouraged them to think about history more critically. For example, some participants completed questionnaires that did not offer evidence of much serious thinking about history, either before or after gameplay, but then also completed interviews where they offered considerably more thoughtful and nuanced responses to questions about history. As a result, in compiling and analyzing this data, I have tried to take a full view of each participant and account for each activity they completed. If the participant was able to express a critical view of history in either the written documents, or the verbally in the interview, but not both, they were still included in the category designated for those who clearly express a critical view of history, and relate this to their gameplay experiences. This is because I recognize that different participants (and different learners) possess different strengths, and what matters most is that they are able to clearly articulate their thinking about history in one of the available formats. One final note before I describe the categories in greater detail, unlike with the project at Carleton, which took place in an upper year history course consisting primarily of upper year history students, no participants in this research project were history majors, and most were last involved in a history course in high school. As a consequence, while the method of carefully analyzing the language of their responses and looking for evidence of critical thinking about history remains intact, I am cognizant that their command of the terminology used in historical practice and especially in historiography is often

more limited. As such, in this research I was focused on whether the participant was able to articulate an epistemological view of history as not static, not objective, not linear, not progressive, and not settled, regardless of the particular language they used describe it.

Clearly Demonstrates a Critical View of History

These categories are formulated with a concern for demonstrating the skills that are most necessary to engage with history and historical content thoughtfully and productively. This conversation regarding 'what history is,' is expansive and and has been described in greater detail in the introduction, but it is important to highlight some of the scholarship surrounding this view of historical making and knowledge. There remain historians who argue for an objectivist-empiricist perspective of history (see for example Evans, 1997), and claim that the dissention into explorations of discourse or marginalized perspectives muddle the purpose of history to serve primarily as a felicitous description of the past based upon faithful interaction with and reflection upon available historical materials. My position, that to demonstrate critical skills in conducting historical work means to understand and treat history as a multitude of conversations, between interpretation(s) and evidence, context and subject position, ideology and power, is grounded in a different scholarship about what history is and how it gets produced. To be clear, my intent not to suggest a dominant and subversive strain of historical theory, as this contrasting view includes a rich and diverse body of scholarship, it is to accurately position one view of what history is (and from a disciplinary perspective the position from which history emerged as a discipline within the academy) in comparison with another.

Writing in short monograph directed towards university students, Keith Jenkins describes history this way: "history remains inevitably a personal construct, a manifestation of

the historian's perspective as 'narrator.' Unlike direct memory (itself suspect) history relies on someone else's eyes and voice, we see through an interpreter who stands between past events and our readings of them" (Jenkins, 1991, 12). According to Jenkins, the past we come to know is "always contingent," upon our own position in the present, our understanding of power, our immersion in a particular ideological perspective – which is why he points out that "history is never for itself; it is always for someone" (Jenkins, 1991, 17). Writing in an article about history directed at non-historians, Danielle Kinsey makes a similar point, choosing to organize history along three considerations: "1) history is interpretation and argument; 2) contingency links the past with the present; 3) the archive is not innocent so do not use it innocently" (Kinsey, 2019, 2). Scholars like Jenkins and Kinsey, who reject the positivist roots and empiricist impulse of history, do so by acknowledging that such a position is impossible to maintain. The producer of history cannot be divorced from the process of historical production (or from *their* present), just as the materials of historical evidence cannot be separated from their own context, discourse, and ideology.

To view history this way – as contingent, interpretative, discursive, relational, ideological, is therefore to view it critically, and to reject the possibility of historical scholarship that exists separately from the processes of historical making and knowledge building. Responses that fit in this category demonstrate at least a basic understanding of history as a discursive process, one that involves a multitude of factors, debates, and conversations about that past that are ongoing. What initially drew me to *Fallout 4* was that it presented a world that is both deeply entangled in the Cold War and a disorientating rebuke of it. Through heavy doses of sarcasm, irony, and thoughtful critique, it denies any reading of Cold War history along

the standard neoliberal axis of American triumphalism. Participants that fit into this category were able to express in clear language a view of history – and of the history presented in the game – that accounts for this complexity.

I will include examples from two participants that were placed into this category of critical skills. Both are from post-play data sources (interviews, questionnaire, and travelogue) and both include critical reflections about history that are tied to gameplay and the game world. In the first example, I wish to highlight a few responses and exchanges from Matt, a first-year political science major.[4] To start, I want to include an exchange that took place between myself and Matt during our post-play interview:

Researcher:	Based on your play experience, can you explain what you believe Fallout is about?
Matt:	I think it's kind of a vision of the future, obviously from a 1950s perspective. It almost looks like ... I don't know if you've ever heard of The Jetsons, that cartoon. It kind of looks like that kind of thing. It's kind of this war from capitalism and communism, and I think it's ... Obviously, the Cold War is there and everything and the Space Race. There's a lot of space stuff that you can see, even on the advertisements. But I think it's trying to show the war between capitalism and communism and how they're both destructive and how there's really no winner in this, because at the end of the day, with the nuclear strike, everyone lost. There is no good and bad. They both destroyed the planet. I don't know.

In this exchange, the Matt is able to confidently link the story of the game to legitimate Cold War tensions that permeated the mid-century, and simultaneously identify the retro futuristic aesthetic. This response certainly complicates a standard neoliberal reading, and gestures

[4] Matt was also a student in the course I was TA'ing for as this research lab as running. I advertised the project in both tutorial groups and had three students sign up and complete the study.

towards an understanding that the history presented in *Fallout 4* is intended to disrupt simplistic readings of this period. On its own, however, it does not fully reveal a critical view of history. For that, I turn to Matt's response to the final question on the post-play questionnaire – do you believe, after playing, that this game has any value for teaching? Why or why not – and in particular one section of it that reads as follows: "It allows us to see past the strong instituted perceptions of the 50s as being an age of glory," (Matt, 4). On his Travelogue, Mat includes a similar refrain in response to question four (Do any of the in-game advertisements stand out for you as you play? Do they present any messages that resonate with you in some way?): "the advertisements in the game are copies of ads found in the 1950s, they show a clearly defined social structure in which men dominate and women are sexualized and oppressed," (Matt, 1). In these responses, it is clear that Matt is thinking about the history of this period in a more nuanced way. He complicates the Cold War, and socio-cultural tensions to more accurately reflect the mid-century period. Finally, in his response to the first question on the post-play questionnaire, Matt acknowledges that "history is written by those with power and influence," and further that we must "learn to read past the words and between the lines," when confronting historical work (1). Taken together, all of the examples evidence someone who, both during and after gameplay, is reflecting upon the world of *Fallout 4* and discussing history in a critical way that recognizes the past as complex and informed by power relations and privilege.

The second example, using data from Shawn's post-play materials, similarly ties together a more complex view of history with the game story and gameplay. Like Matt, Shawn also notices how the tone of the game story encourages the player to think specifically about

how American identity, centered upon a particular reading of the Cold War period, is confronted and challenged by the game:

Researcher: What do you think the significance is of generating the game world that attempts to imagine a future where nuclear war is taking place? Are there any lessons that can or should be taken away from interacting with this game space? Outside, I guess, of nuclear war is bad and we should probably avoid it.

Shawn: Yeah. I think we see definitely how fragile our infrastructure is and how much we rely on it day to day basis to get by. People struggle with everything from transportation, to safety, to food and water. And I think the lesson at the core of it is that you need to, I would say you need to be peaceful in a way to achieve the stability you want. There's no stability with conflict. No matter how prosperous the United States was, it was ultimately the lack of peace in the creation of conflict which led to their demise. And I think you see it after the war, it's the same conflict that's leading to people dying and leading to the lack of resolution in this world.

In contrast to the neoliberal story of American (and capitalist) triumph, Shawn points out how at the core of the story in *Fallout 4*, there is a fundamental instability and precariousness, one that eventually spills into cataclysmic conflict. In another exchange in the interview, Shawn documents how much the world of *Fallout* seeks to embellish and amplify a nostalgia that is directly entangled with a particular American identity that *Fallout 4* prevents both the player and the denizens of the game world from finding solace in:

Shawn: Yeah. Well, I put here, I think one thing is that they show a lot, they amplify the American values to the point where it's so strong. You can look at the past, you can see that no matter how strong it is when you have values like the amount of capitalism and greed and hubris that the United States had, it's not a surprise to see what happened and how they were destroyed by war. Right?

Researcher: It's almost bombastic. It's so over the top, right?

Shawn: Yeah. Everything is made to be very American. This is how people see America, this isn't America in the 1950s, but this is how people right now would see America in the 1950s.

Taken together, it is evident that Shawn's perspective on the history the game presents is complicated by the tone of the game world and story, and he is able to connect the tensions the game reveals to history more generally, by discussing how the game eschews the comfort offered by a nostalgic reading of the Cold War period couched in dominant narratives of American success and power. Instead, what Shawn observes during play is how this amplification of "American identity" and desire for nostalgia have become untenable, because the world has become a nuclear hellscape in spite of this posturing.

Finally, Shawn provides further insight into how the game mobilizes history and what it can offer the player, in his response to the final question on the post-play questionnaire: "I believe the game provides context to American life and values post WWII through an ahistorical lens that amplifies American values. We better see why America today is the same and different. As well, the game exposes many current and ongoing issues (vulnerable individuals, drug abuse, resource scarcity)," (Shawn, 4). Without explicitly stating so, Shawn has connected the story of the game and the history it immerses the player in both to the Cold War period that inspires its aesthetic and tone, and to the present, recognizing the temporality of history in the process. In addition, he frames history as political by acknowledging how narratives about America and American identity come to inform our understanding of the history of this period, regardless of the extent to which they honestly reflect real issues and tensions. Like Matt, Shawn does not use historical terminology to explicitly describe the game and his experiences playing it in a critical way, but his responses do reveal that he is thinking about what *Fallout* might be trying to say about this period, and about history, as a way of confronting, satirizing and challenging dominant narratives about the Cold War and mid century period in America.

Demonstrates a Partially or Limited Critical View of History

Introducing the first category required considerable space because it is vital to explain how criticality is assessed within in this particular participant group, given that by and large they do not possess the advanced historiographical knowledge/terminology typically working to illuminate it. The second category is more straightforward, though it remains mindful of the likelihood that the participant is attempting to discuss and explain history using primarily non-expert language. This category refers to data where the participant expresses **a limited or partially critical view of history,** and relates this to their gameplay experiences. Responses here demonstrate that the participant is thinking about history and asking questions, which evidences that they are on the right track to expressing a critical perspective, without fully or clearly articulating such a position. What distinguishes data in this category therefore is that it represents the process of working through the questions outlined in the questionnaires, interviews, and travelogue in a way that illuminates an understanding of history that is unsettled, but is neither confidently critical or uncritical. I will return to this last point in a later section, but it is important to clarify that my intention here is not to infer anything about a particular participant's personal competency in historical thinking. The purview here is considering how engaging with and playing *Fallout 4* either did or did not encourage and result in them asking questions or challenging the making of history as they understand it.

I will include one example here to help elucidate what is meant by expressing a 'limited' or 'partial' critical understanding of history related to gameplay. As with the previous examples, this data also comes from post-play sources, in this case from Miriam. In her travelogue, Miriam includes two responses which evidence how interacting with the game space has raised

questions for her regarding history and how America tells the story of its past. In the first, while roaming 'the museum of freedom' Miriam remarks how the story the museum desires to tell about American history is disrupted by the reality of the world outside of it:

> I realized that the entire museum emphasized the American Revolution. I feel that the museum kind of antagonizes the entire game and relays a very opposite message when compared to the story of the game. Within the museum, there are painted murals of the Americans fighting for their independence from the British empire next to another painting of American astronauts landing on the moon – displaying the message that America is the most successful and on top. However, the story takes place in an America where the entire virtual environment of Fallout 4 is dystopian due to America's involvement in the Cold War… the outside world has gone to ruins (Miriam, 2).

In this response, Miriam is working through the disjunction between the story the Museum wishes to tell and the reality of life in the present, and she notes correctly how this narrative of American dominance is rebuked by the wreckage of a post-apocalyptic game world. In a second response pulled from her travelogue, Miriam suggests why Bethesda (the game makers) may have decided to include such a stark contrast: "I believe that Bethesda Studios have their own take on a very possible dystopian future. This is because when the Cold War was happening, tensions were high and stresses that occur were mirrored with the beginning of the storyline. Bethesda tried to give a first hand view in what would happen if real nuclear weapons would be fired" (Miriam, 2). Taken together, both responses acknowledge how the game world serves as a site for speculative history, while also relaying some of the anxieties and and tensions that were true to the real mid-century Cold War period. What remains absent in these answers

however is an answer regarding the *significance* of positioning history in this way. She accurately identifies what history in the game world is doing, but does not go on to provide information as to why such a counterfactual is being constructed, or what it may be seeking to challenge/question regarding our understanding of this historical period. In the absence of this information, her answers are best understood as reflecting a limited or partially critically view, insofar as they raise important questions about how the game positions history and produces a counterfactual, but do not in a clear way explain the significance of generating this kind of story/game space. Arguing that Bethesda wanted to show what a post-nuclear conflict world would look like is good, and certainly does suggest she is actively thinking about the game in a broader political context, but on its own this is enough to reveal a critical understanding of history.

Does not Demonstrate a Critical View of History

The final category for data involves participant responses that **do not demonstrate a critical view of history** related to gameplay. Data included here may accurately point out how features of the game world resemble in some way the aesthetics of the mid-century period, or correctly identify the core conflict in the game as a speculative take on the Cold War period, but they do not actively raise questions about why the game is presenting this history, or how it might contrast with our understanding of this period. In addition, this category also includes responses that do not identify or associate the game with history in any meaningful way, either because the respondent has chosen to focus on other topics or because no clear identification of the game's historical features is included in their answers. Insofar as the purview for this study was to determine whether or not engaging with and playing *Fallout 4* encouraged the

player to reflect upon its historical setting/aesthetic/motifs and upon history in a more critical way, responses included in this category appear to initially represent where these efforts have been unsuccessful. Though I believe such a conclusion is unhelpful, and as I will outline later, does not capture an additional factor in considering why such a critical engagement with *Fallout 4* may have been out of reach, it is important to be honest. There is no circumstance where an educational activity will produce equal and positive benefits for all participants, and this research is no exception. Not every participant engaged with the game in the same way, or approached it with an equivalent degree of interest or studiousness regarding its historical content. As such, data included here covers a broad spectrum, wherein it is simply not evident that the playing *Fallout 4* encouraged the participant to think about history more critically.

Briefly, I will include two examples here that demonstrate the kinds of participant responses which fell into this category. Both from post-play sources, in the first, Kyle responds to question three on his travelogue document, which asked participants to direct the researcher towards places or elements of the virtual environment that they thought were historical or ahistorical:

> Something that is both historical and ahistorical at the same time is right at the beginning of the game in pre-war 2077… it's kind of confusing that in a time such as 2077 people still have a heavily stylized lifestyle reminiscent to the 1950s. something old-fashioned, straight out of *Happy days*. Maybe the 'nuclear family' was a fitting idea for game like Fallout. The whole 1950s style with robot butlers in a year such as 2077 is so forward in science fiction and yet so historically backward at the same time (Kyle, 3-4).

Kyle correctly identifies the aesthetic style of Fallout, and even gestures towards a futurism that remains reminiscent of the mid-century. However, outside of documenting this for the reader, there is little consideration regarding the significance of this setting, or any indication that he is thinking about why the game generates this kind of speculative historical space, and what questions it seeks to raise for the player. Whereas Matt and Shawn are able to raise questions about history that are directly related to the game world and their gameplay experiences, and Miriam also asks questions about the history in the game and the tensions it reveals to her about the Cold War period, Kyle identifies and documents, without much active consideration or reflection. And in his response to a question on the post-play questionnaire – regarding whether he believes the game presents any arguments to the player *regarding history* – it is evident that Kyle's focus is not on the historical content of the game: "maybe an environmental warning about the usage of nuclear, coal energy sources, depletes energy source to the point we fight over barrels of oil" (Kyle, 11). While Kyle correctly identifies the aesthetic elements of the game and their relationship to a real historical period, his responses do not suggest that he actively engaged with this component of the game in such a way that it encouraged or led him to reflect upon the history that the game presents.

In the second example, it is also clear that this participant, Jim, has not considered how the game employs a historical setting to raise questions about the period (and about history generally). Like Kyle, Jim does associate features of the game world with real historical actors and places, though not perhaps as successfully: "Diamond city is Fenway Park. Such an icon of Boston is still standing after a nuclear war. The Brotherhood of Steel and The Institute are the Russian and the US during the Cold War. The Brotherhood believes that they must cleanse the

commonwealth from the Institute like the US wanted to do with Communism" (Jim, 6). Leaving aside the debatable connection between two of the in-game factions serving as stand-ins for Cold War superpowers, Jim does at least reveal that he notices how the game world draws upon Cold War history. Outside of this, however, it is evident that playing the game has not encouraged Jim to think about why the game might include this history, or upend it by speculating on the outcome of a nuclear engagement. In general, his responses include little reference to any history the game includes or presents, opting instead to focus on his experiences playing through the story: "The Far Harbour story line is really cool to me. I also have family that lives in Maine and getting a chance to explore the land in and out of a video game would be cool" (Jim, 6).

Both Kyle and Jim correctly identify the aesthetic of the game, and are able to place its setting within the Cold War/mid-century period. Put another way, both notice how the game makes use of this period in its setting and story. However, there is little information beyond this recognition from either participant that suggests that playing in this space has encouraged them to think about this history, or about history generally. Consider for example, how both responded to the question "what do you believe the goal or purpose of history is?" on their post-play questionnaires. For Kyle, history is "a collection of information that tries its best to describe a past event to people of today and to draw ideas, and opinions about that event" (Kyle, 8), while for Jim "the purpose of history is to teach the present about the past and educate them with the truth" (Jim, 7). Similar to each other (a pattern I will draw attention to shortly), neither indicates much in the way of reflecting critically on history, or suggests that either of them felt encouraged to think about history by engaging with the counterfactual

world and story of *Fallout 4*. None of this serves as any indication of their general capacity for critical historical thinking, and it is crucial to state so explicitly. It is entirely possible that in another context, considering different questions, Kyle, Jim, and any other participant in this category would be able to engage with and reflect upon questions in history in a thoughtful, nuanced and critical manner. It is the case, however, that they did not do so in their responses for this research study, which does suggest that the game did not significantly motivate or encourage them to think about history while they played the game and explored its story.

Macro Data

As stated above, during the course of the research project, **seventeen** participants came into the lab and completed the first part of the study, while **twelve** returned for the follow-up session and completed all components of the study. The data that has been compiled into the following figures (4 and 5) represents a full view of a participant's engagement with the various research instruments. In other words, rather than breakdown the responses for each activity, I have combined every activity together for each respondent. Thus, in the initial visit, if the participant demonstrated a partial or clearly critical view of history in their responses to either the interview questions, or on the questionnaire (but not necessarily both), they are grouped into the corresponding category. The same is true for the return visit to the lab, adding in addition the travelogue document. The first graph (figure 4) includes data from before gameplay and after the first visit to the lab, while the second (figure 5) includes data from after gameplay and the second visit. Furthermore, in the first graph I have elected not to include the data from participants that did not end up completing the study. Because this representation is primarily concerned with providing a snapshot of the breakdown before and after gameplay, it

is not useful to include information from individuals that did not complete the study. Some of the information gathered from every person that participated in part of the study will be used in the next section to discuss some specific insights gleaned from responses. Below are the graphs representing the data from before and after play for the twelve individuals that completed the study:

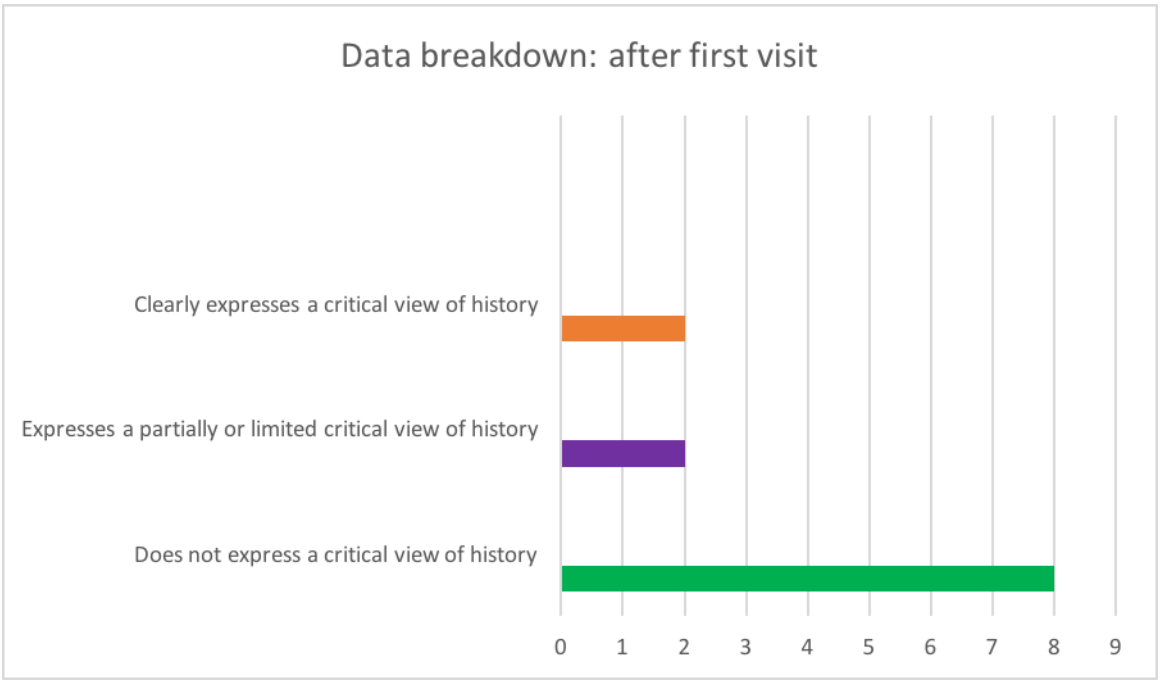

Figure 4 – A Breakdown of data from participants after the first visit to the research lab, and before gameplay.

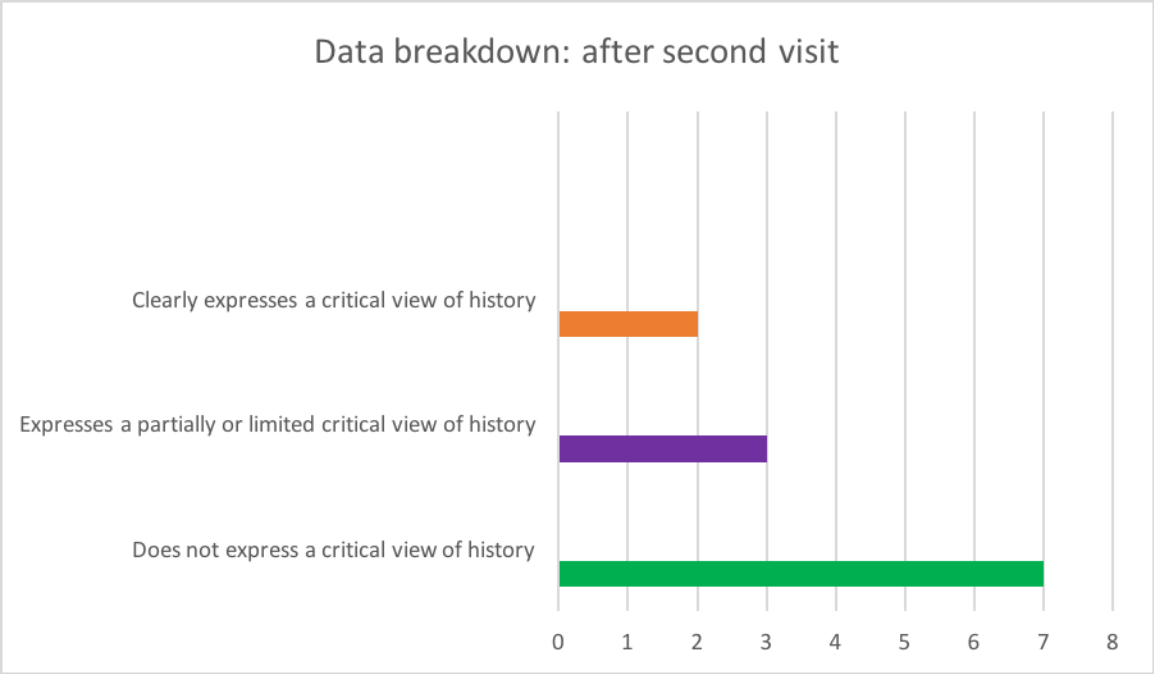

Figure 5 – A breakdown of data from participants after their second visit, and after gameplay.

Briefly, to summarize. Looking at the range of data from each participant after the initial visit to the research lab, **two** respondents clearly expressed a critical view of history in their responses to the interview questions, on the questionnaire, or in both formats, while an additional **two** expressed a partial or limited critical view of history. **Eight** participants did not demonstrate a critical view of history in either their responses to interview questions, or on the questionnaire. Data from the return visit to the lab, after gameplay, is largely the same. Once again, **two** participants clearly expressed a critical view of history – and linked this discussion to their gameplay experiences – on one or more of the available response formats (interview, second questionnaire, travelogue), while t**hree** expressed a partial or limited critical view linked to a discussion of their gameplay experiences. **Seven** participants did not demonstrate a critical view of history on their return visit to the lab.

One small but important note: the purpose of this research *was not* to determine whether or how engaging with *Fallout 4* could contribute to the growth/advancement of historical content acquisition (that is, learning historical information about the Cold War/ Mid-Century Period). Rather, it was to explore how engaging with a pseudohistorical and counterfactual play-space could raise questions about history for players, and what they might learn about history as a consequence of play. This is why it is important to remark that in every example taken from the post-play data, participants that expressed either a clear or partially critical view of history did so in the context of discussing their gameplay experiences, and thus it is evident that at least for this group playing the game and being asked questions about it got them to think about the history it presents in an abstract way. In addition, every participant save for one correctly identified the aesthetic of the game, and connected its atmosphere and setting to the Cold War period.[5] Several established links between in-game factions like the minutemen and the railroad, and their historical antecedents.[6] Therefore, although it is admittedly disappointing that only a few of the participants managed to successfully (or to begin the process of) reflecting upon their gameplay experiences and the setting/story of *Fallout 4* to raise critical questions about the history it presents, or about history generally, it

[5] One participant misidentified the historical aesthetic of the game as the roaring 1920s, while the other eleven placed the historical setting in the mid-century (1950s60s)

[6] One participant, Tom, remarks on his travelogue that, "I like how the game made several references to early American history with the minute men, and the underground railroad but with Synths" (Tom, 1), while another, Tyler notes in his second interview: "I'd say the most interesting aspect of the gameplay were the Preston Garvey missions of the Minutemen… From my understanding, it was before the start of the American Revolution, the estate would tell these men to arm themselves at a minute's notice in case the British got out of control" (Tyler, 1). Finally, in his second interview, Shawn insightfully comments on how these historical allusions work to set the tone for the environment in *Fallout 4*: "The Minutemen, those are obvious callbacks to history, and I think it foes to the nostalgia that Fall tries to play into… the people there [in the game] are very nostalgic about the past and everyone's hoping to hold on to the past in whatever way the can… just trying to get the stability that they can get" (Shawn, 4)

would be inaccurate to state that they did not view *Fallout* as a game deeply immersed in history, and take away insights gleaned from their experiences playing the game. However, this does raise a question, one that has be alluded to several times earlier in this chapter, and that is as follows: if most participants were able to correctly identify the historical aesthetic and setting of *Fallout 4*, and even several of the historical allusions within the game, why were so few able to articulate in their responses what questions this game might be asking about the history of the Cold War period, or history more generally? It may seem obvious that the answer revolves around a generalized absence of knowledge about the Cold War period, that largely rendered participants unable to engage meaningfully with the game's critical historical content. I would argue however, in full view of the data this research amassed, that this explanation is misses an additional significant problem, and thus I would like to turn to this question now.

Assessing Historical Skills

Several times in this chapter I have outlined how this study revealed something that I had not expected it to, and this relates to historical skills development and assessment. Truthfully, when I had initially worked through all the available data from first and second visits, I was fairly disappointed that *Fallout 4* only seemed to raise questions about history for a few of the participants, while most kept their discussion of the game limited to its aesthetic, story and setting, without acknowledging in any clear way how it challenges conventional historical thinking. However, as I dug further into the data, I began to construct a pattern (and frankly a troubling one) in many of the responses to particular questions that were asked on the pre and post-play questionnaires, and I believe that illuminating this can provide insight as well as context for why many of the participants did not entertain more critical thinking in their

responses. I want to be clear, this research study had flaws, and was certainly not executed perfectly. I have already discussed how the bloat of information made it difficult to work through and properly assess participants, and further how having them perform so many activities undoubtedly wore on them over the course of their participation. I could have been more incisive in my design of the instruments to ask better questions more likely to yield thoughtful responses. That said, I do believe there is an additional reason why most respondents were not able to talk about history and *Fallout 4* critically, and this is that their experiences in history education up to the point of their participation in the study – and *most especially* high school history classes – did not seem to prepare them to think about history in this way. It is not the purpose of this section to speculate on the exact reasons for why this may be, and it would be unfair to suggest that the data from seventeen people represents a sample large enough to draw general conclusions from.[7] Furthermore, regardless of the specific takeaways from elementary and high school history education that these participants remember, there has been a broad movement in recent decades in history education to include more analytical and critical content and encounters with the past (the language surrounding 'historical thinking concepts' is deeply woven into the outline for the 2018 revised Ontario curriculum) Finally, this pattern that presented itself in the data – a tendency to view history in a linear, reductionist, and uncritical way - should not be viewed as the core takeaway from this project. Nevertheless, it is worth exploring in some detail given that so much of the data I

[7] There is an extensive scholarship which attempts to investigate and provide insight into the question of student (and the publics) experiences/engagements with history, and their thinking about history. See for example Bryant & Clark 2006; Clark 2009; Conrad et al., 2013; Gibson & Duquette, 2020; Levesque 2005; 2008; Miles 2019; Seixas, Peck & Poyntz, 2011; and Wineburg, 1991; 2001.

encountered raised the spectre of participants' pervious exposure to history in an educational setting.

Because I am interested only in establishing a general sense of how participants were thinking about history upon their initial visit to the lab, I will include only examples from the pre-play questionnaire. Furthermore, as post-play responses are not relevant to this discussion, it is appropriate to include examples from all seventeen participants that completed their initial visit. These were questions one, two, and seven, on the questionnaire document and they read as follows:

1) Please consider a history lesson that you remember from school and describe it. Why do you remember it? What, if anything is significant about it for you?
2) What do you believe the goal or purpose of history is? What value, if any, does it offer?
7) If a friend (or a sibling, child, colleague etc.) were to ask you to help them understand what history is, and what historians do, how would you respond to them?

The responses to these three questions outline a pattern for assessing where, in general, participants were located in regards to their thinking about history, what historians do, and what matters (if anything) about the subject. While I do not believe it is possible to infer any universal claims about history education by examining these responses, it does help illuminate how their engagement with history up to this point had resonated with them.

In response to the first question, the overwhelmingly common response that I received related to some major conflict, most often World War I or II. And in several cases, it was memorable to them specifically because Canada's involvement in said conflict was purposefully emphasized by their teacher. For example, Catherine offers this response to the question:

> I remember a time in one of the World Wars, Germany had developed the deadly mustard gas and launched it during battle. They likely would have won but one Canadian soldier figured out that urine was a good way to bypass the gas. I remember it because of how deadly the gas was and my teacher emphasized it since the soldier who countered the gas was Canadian (Catherine, 1).

Or, consider Tom and Mike, who both offer similar responses related to Canadian involvement in Vimy Ridge. Tom remarks that "In high school we were taught about the battle of Vimy Ridge during World War 1, I remember that it had significant to Canadians at the time as the majority of people were Canadian," while Mike notes in his response: "I distinctly remember a lesson about Vimy Ridge. I remember it because of the detailed explanation the teacher gave about the battle tactics used… it was a demonstration of using intelligence in combat and a key point of Canadian history" (Tom, 1: Mike, 1). In total, **ten** of the seventeen participants wrote about an event the revolved primarily around a major wartime conflict, while the three mentioned above specifically remember Canadian participation in said conflict because it was emphasized by their teachers. This may seem innocuous (though I would argue continuing to promote a narrative of Canadian nationalism under the guise of history is deeply problematic) but it is important to consider how the participants describe these lessons. In the above examples, their significance is not linked to complex historical factors or questions about imperialism and its consequences at the turn of the twentieth century. Canadian involvement in the wars and the formation of a Canadian narrative are not linked to settler colonialism or Indigenous genocide. Rather, these examples continue to perpetuate the mythos of Canadian nationalism as coming into form neatly after the first World War where Canada proved the bravery and tenacity of its

fighting men. The sacrifices of every person that participated in the war effort are real, and I have no desire to diminish them, but it is deeply problematic that so many participants offered responses to this question that read similarly and lacked critical reflection.

Responses to questions two and seven are even more troubling because these questions asked in a specific way for the participant to consider what history is about, what historians do, and what value history offers to them personally and to the broader public. With responses to the first question, participants were not asked to provide a myriad of contextual details about the lesson they remembered (though I think it is fair that if such a contextual understanding were an important part of the lesson it would have been more common to see it included in their responses), and this is perhaps why almost no answers included much context or nuance beyond description of the event under consideration. In questions two and seven however, participants were directed to consider history abstractly as a subject and a vector for knowledge, and both questions tried in different ways to accomplish this so that it would be possible to get a picture of participant thinking about history before play (to ultimately compare it with their view after play). I cannot possibly include every example here, so I have devised two generalized examples in which the vast majority of responses fit, one for question two and another for question seven. I am referring to these as the 'common refrain' answers that participants offered and they are outlined as follows:

For question two: "The goal of history is to learn from past events to avoid making the same mistakes in the future"

For question seven: "Historians record past events and help us learn about them"

Out of the seventeen participants that came to the research lab for an initial visit, **thirteen** offered some close approximation of the above response to question two, while **ten** responded to question seven in a similar way as outlined above.[8] As I have already made clear, this is not a reflection of any participant's intelligence or competencies in history; rather, it should direct us towards considering the sort of history that they had previously engaged with, up until their visit to the research lab. In reference to this, it should be noted that **fifteen** participants included high school history courses in their lists of their three most recent courses in history, while **seven** included elementary school courses. Only one participant included courses exclusive to the college/university level, while one participant listed three courses without any identifying information outside of subject area. **Four** listed at least one university course (but in the case of three, this was identified as a first year course) and **three** included at least one college course on their lists.

Remembering lessons about conflict and war, and describing history by conflating it directly with the past and morally equivocating about its usefulness as a cautionary tool to avoid future mistakes is not an accident when this is the content that learners are most often exposed to in their compulsory elementary and high school history education. In a 2005 article that aimed to explore the differences in conceptions of historical significance between Francophone and Anglophone history students, Stephane Levesque had 78 Ontario students

[8] Some examples. For question two Catherine outlines that "I believe learning history is a good predictor of consequences of one's actions which help avoiding possible mistakes" while Miriam notes that "I believe that the goal of history is to inform future generations of mistakes that have already occurred and ensure that they are not repeated" and Tom remarks: "It [history] offers us present day insight in not repeating old mistakes" (Catherine, 1: Miriam, 1: Tom, 1). Meanwhile, for question seven, Nathan states that "historians share and tell us the history (or past) that has happened and how we should learn from it" and Kyle adds that "They [historians] piece our understanding on a particular subject or event" (Nathan, 1: Kyle, 1).

rank what they believed were the most significant events in Canadian history. As he notes, "participation of the colony/country in international conflicts," ranked first, ahead of Confederation (2005, 6). In response to his findings, Levesque cautioned that "without a defensible conceptualization of historical significance, it becomes extremely problematic for teachers and students to articulate their own selection and conception of the collective past" (2005, 8). In a study conducted by Seixas, Peck, and Poyntz in 2011, examining how students employ historical thinking skills with a set of primary source documents, these authors note a related problem, which they argue contributed to their mixed results:

> In this exercise, they [students] were eager to negotiate past and present, and thus to act as the best historians do with one foot planted in the present, even as they examined the past. But, the students' footings were unsure. If they made insightful comments from time to time, they needed guidance as they slipped into anachronistic thinking and unwarranted conclusions (Seixas, Peck, & Poyntz, 2011, 60).

In both cases, the research suggested that the students struggled to combine a framing of historical events, or an analysis of historical sources, with a critical view of history as a subject that would more readily have raised questions of significance and distance, in addition to those of ideology and authorship. More recently, in a small-scale study conducted with a high school history class at one British Columbia school using historical photographs in an attempt to get the students to reflect upon difficult history and difficult knowledge, James Miles notes that "many students were initially provoked into an affective reaction in which an intensity or experience of trauma and darkness were present," however, "in working through this affective force, students sought to transfer this new difficult knowledge onto existing, familiar, and, I

argue, comforting narratives" (Miles, 2019, 489). Importantly, Miles is explicit in explaining why he believes a more nuanced and complex encounter with these images (of children in residential schools) and their history was often *out of reach* for these students: "the difficult knowledge of Canadian settler colonialism has readily and consistently been obscured or rejected in history curriculum and pedagogy for generations," and this means that "in some ways this difficult knowledge had already been foreclosed or resisted in the curriculum itself, and while these photographs may have provoked some initial affective responses, it is unlikely they alone could disrupt dominant ways of thinking" (Miles, 2019, 489). In the case of these examples, and in the research data from this study, it is evident that when history is divorced from complexity and nuance, the kinds of responses which are generated to questions about what history is, what function it serves, and what historians do, are likely to be reductive and uncritical. This does not mean that the research study was perfectly designed and executed, but it does suggest that these participants may have come into the study already at a sizeable disadvantage, if we are to take them are their word (in the form of their responses) that their previous engagement with history as a subject was most memorable for highlighting conflict and a series of mimetic exercises in memorization that results in viewing history and the past as the same thing without the capacity to critically distinguish between them, and to acknowledge what historians do when they 'make history'. Some participants of course were able to do this, either partially or clearly, and they are accounted for in this chapter, but the majority did not, and I believe that exploring this issue and looking at these questions in particular does provide some insight as to why that might have been the case.

Conclusion

Again, I want to stress that the above section should not be taken as the core insight that can be gleaned from this research study. Rather, this study remains framed around the three questions that guided both studies: **1) How do historical games activate/represent history and reveal insights about the processes that underlie historical making and knowledge building? 2) What knowledge/skills, if any, do learners acquire by playing and making historical games? 3) What represents best practices for deploying historical games in educational settings?** The first of these questions was addressed in an article I wrote about *Fallout 4*, some of which has been included here to provide context about the game and its historical aesthetic/setting. *Fallout 4* is a critical and counterfactual historical game, one that invokes a retro-futurism aesthetic with a mid-century style and imagines a world where Cold War conflict has turned nuclear. In the aftermath, the player is tasked with exploring the wasteland that remains of former Boston and several other sites in historical Massachusetts, as they encounter the people and cultures that remain after the nuclear event, and search for their missing child. Over the course of play, they encounter many places, in-game factions, and myriad sources of information that piece together the world that was, and attempt to reposition the mid-century period the game is inspired by as one deeply unsettled by anxiety, tension, and fear. Certainly, it is a far cry from the idyllic 1950s so often narrativized in accounts of the post-war boom. In contrast, the player must constantly confront violence and remnants of the previous society that are oozing with irony and bombast, speaking to a culture obsessed with consumption and addicted to new forms of mass media (as well as a runaway military-industrial complex). *Fallout 4* issues direct challenges to the linear reading of history, and in

particular of the Cold War period, as one which reached its climax in 1991 with the triumph of neoliberal capitalism over Soviet communism. Perhaps there is a temptation to scoff at this notion, that the public still often tethers itself to this story, or others like it, but I hope some of the responses I highlighted in the previous section proves its power as a nationalist rallying point. So often what is remembered in history is little more than identity politics by association, a nationalist impulse to believe that the progression of events has culminated in a society that is more evolved and progressive, as though history was always destined to unfold in this way. The narrative of neoliberal victory over slovenly Soviet communism that failed to keep pace is far from gone in the public view, or in popularized depictions of the Cold War period in media. *Fallout 4* attempts to do something different, by upending history and producing a world where such a narrative becomes untenable.

Addressing the second question, in having participants play the game, with some guidance, I hoped that they would begin to see how it presents a critical history about the mid-century period as I did when I first encountered it. To this end, I devised a number of research instruments that would collect data I could then analyze to determine whether or not playing *Fallout 4* encouraged any of them to think about history differently, or at least to notice how history is mobilized in *Fallout 4* for a purpose. In addition, I provided some basic scaffolding for them, in the form of the visual primer, which revealed how *Fallout 4* borrows extensively from the Cold War/mid-century period, and provided space in the initial interview for them to ask me about the game, its setting, and its history. Ultimately, some research instruments proved more successful than others at elucidating this information, as I discussed above, and this revealed to me that less could be more in terms of what exactly it was worth having

participants do. I do not think multiple questionnaires were necessary, since the answers largely ended up mirroring themselves, and the same is true for second interviews, though in both cases some new questions that were added related specifically to gameplay were beneficial to include. When participants took it seriously and engaged with it meaningfully, the travelogue yielded a great deal of insight into how they played, what stood out for them, whether they could identify history in the game, and whether it gave them pause to think about what history was doing in this setting. I have described at length how their engagement with history via play was analyzed and assessed, before being categorized. I have also been careful to acknowledge that the breadth of data required me to consider every source of information together before determining which category most accurately described a participants' thinking about history related to their play experiences. I must admit that I had hoped the game would have a more demonstrable impact on getting them to think about history more thoughtfully and critically, since it had seemed so clear to me while I played it. However, I am encouraged that so many did correctly locate the historical aesthetic and setting, while a few took this farther and included language about anxiety, tension, bombast, politics and propaganda.

As to the third question, though I have touched upon it here in several places, most especially in acknowledging the limits and problems in my own study (and how to do this better), I think it remains largely unsettled. Certainly, there is enough in these results to suggest that participants who really engaged with the game, and saw the way it mobilized history, were able to achieve meaningful engagement and productive outcomes related to their own view of history as a subject. Beyond this, most were at least able to properly classify it as an historical game, which suggests that there remains a way to use a game like *Fallout 4* to do this kind of

work in critical skills development, even if my attempt here was not totally successful. Importantly, I think many of the responses I received from participants highlighted just how far the gap is for a good portion of them between knowing what history is and understanding, critically, what history and historians do, and why. If nothing else, and bearing in mind again that this sample size cannot speak for all experiences, I contend that the kind of responses I received to questions asking participants to explain what history is, what its goals and values are, and what historians do, is troubling enough to cause a real pause in what 'history' it is exactly that students are learning before they enter college and university. If a student leaves high school and the compulsory history course it requires and cannot even distinguish between the past and history, let alone acknowledge who historians are, and how they actively 'make' history in their work, then in my view such an education has profoundly failed the learner, and left them woefully ill-equipped to engage with or challenge history in any meaningful way.

Truthfully, I think much more work remains to be done, in improving, refining, and most importantly implementing participant-based research into historical games scholarship that explores their potential uses in history education, because there remains a paucity of data, one of several reasons why I was motivated to do this work to begin with. Done carefully, with proper context, scaffolding, and guidance, a project such as this one, where the student explores a virtual world that explicitly raises questions about history and how we understand past events, can prove beneficial in their development of these critical historical skills. Certainly, I maintain this view of a particular kind of historical game, like *Fallout 4*, that so forcefully disrupts positivist and objectivist interpretations of the past and provides the player with a setting where they can explore for themselves how history is actually constituted by politics,

ideology, subjectivities, and power. Nevertheless, I admit readily that achieving positive results from implementing historical games in history learning is not easy in practice, and a major takeaway from this research study for me was how difficult it is to finely tune participant interaction with a historical game (and in my case, *critical* historical games) in such a way that enough context and information is provided for them to understand what is going on within the game, without overstepping and essentially providing the questions they are supposed to raise for themselves during play in advance. My sample size is small, but it is not without meaningful data, despite the challenges I encountered. **Five** participants did, either clearly or partially, talk about history critically in their responses on questionnaires and/or in the interviews, and they linked this conversation to their experiences with gameplay. To varying degrees, they acknowledged how *Fallout 4* got them to think differently about history, whether regarding the period the game encompasses specifically, or more generally, and they drew more nuanced connections between the history in the game and its purpose (its argument, its interpretation of the past). Yes, their answers also revealed how unequipped their previous experiences in history education left them to do this kind of critical work, and that is important to highlight, but the major takeaway from this project, however uneven it may have unfolded, and despite the challenges I encountered, is that playing a critical historical game *can* afford opportunities for students to engage critically with history, to ask questions about it, to gain insight into how it positions interpretations and arguments. That is, to gain an understanding of how the traces of the past are mobilized to *stake claims* about what is important in history.

Chapter Five: *Re-thinking History Teaching: Historical Making and Learning in Digital Culture*

Introduction

This research was motivated while running my earlier participant study on *Fallout 4* at York university as part of my PhD fieldwork. In conducting this research, I began to think about teaching and learning through the process of **making** in addition to playing. In the *Fallout* study, participants played the triple A Game *Fallout 4* and reflected upon their experiences. I realized that this alone would capture an incomplete picture of the educational potential of digital historical games, and so began devising a subsequent study where the participants would be responsible for making a game of their own. In so doing, I hoped to combine data from both projects to pursue a more complete conversation regarding how playing and producing historical games can have positive affects in history education, and most importantly in the development of critical historical skills. Ultimately, I decided that I would design a research study that would double as a university course, where students enrolled could choose to participate in the research by providing access to some of their completed work in the course. The course would be designed around a central group project, the making of an historical game, with lecture materials and other assignments tailored in such a way so as to provide a foundation and framework for the students to pursue this work confidently. As I was already a contract instructor at Carleton University teaching a course on digital history, I decided that the next iteration of this course would serve as the site of the research project as well.

In the Fall of 2018 I began looking into financial resources that would allow me to provide the necessary materials to engage in this research. Particularly, this included the cost of providing software to potential participants. I applied for a teaching innovation grant available

to contract instructors at Carleton University in the Fall of 2019, and at the same time devised an outline for the course that I would run centred around a major project that tasked students with devising and producing their own original historical game. This initial application was unsuccessful, but I was directed to another grant by the chair of the department that could provide the financial assistance I needed to undertake the project, the Scholarship of Teaching and Learning (SoTL), also available at Carleton. I applied for this grant in the spring 2019 and was awarded $4500 to implement this project in the Fall of 2019. The primary expenditures for the research were software, and the hiring of a research assistant that collected data, kept it securely, and conducted interviews. The RA acted as a barrier between the participants and me while the course was running, in order to avoid any ethical concerns. I was only able to learn who the participants were and access their data after the course was completed and final grades were submitted. Based upon a modified version of the outline I had created for the original grant application, I designed and ran a course on digital history at Carleton in the Fall of 2019, that simultaneously served as the site of the research study.

Instruments for this research were designed in coordination with the ethics process. Originally, I thought that I would take their work over the duration of the course and go through it to determine whether completing assignments ultimately aimed at producing their own historical game had demonstrated any growth or advancement in their critical skills as evident in their work. However, Carleton ethics was uncomfortable with this idea, and truthfully a simple evaluative overview of student progress likely would not capture as much information as I wanted, as students demonstrate skills and growth in any number of ways not always captured by a grading progression. So, instead I elected to focus primarily on a single

assignment I designed for the course, a **critical reflection document**, where students were tasked with writing down some of their experiences working through the major assignment. In addition to this, I added the option of voluntary interviews, to be conducted after the course was over, and a demographic survey, to be completed on the final class of the term. The critical reflection document consisted of ten questions, which were intended to guide a discussion from each individual student about the work that they undertook for the final project in the course, and illicit information about a number of key components involved in developing and advancing learning and critical skills. These include, but are not limited to: engagement, individual confidence (active voice), creativity, describing intellectual processes, and critical thinking. The idea behind the document was to pose questions which would encourage students to think about these categories, among others, in their answers, tying their thinking directly to the work they did on the major assignment. The interviews were intended to serve as an additional opportunity for the students to engage in this conversation, and consisted of similar (though somewhat different questions) using a responsive approach that allowed ample time for students to expand upon their thinking/answers.

Surprisingly, the project was impacted by an injury that I sustained in August 2019, about three weeks before the course/research was set to begin. I broke my foot in mid-August, requiring surgery that rendered me unable to travel for several weeks, and when I could I was significantly hampered by my inability to bear any weight on my foot. Because of the injury, the study was initially introduced and described by the research assistant, and the teaching assistant assigned to the course. I provided them with materials, including an ethics approved script to read from that would explain the project, its components, aims and goals, and invite

any students in the course who wished to participate to sign a consent form. Recruitment took place over the first five weeks of the term, that last three of which I was present in person to oversee, after the travel restrictions were lifted. The reason recruitment took place over five weeks was to account for the period wherein students could drop or enroll late in the course. For a few minutes in each of these weeks (and with me leaving room once I returned to in-person teaching) the RA would invite students to participate and collect consent forms. During the recruitment period, twenty-five students signed up for the study. Out of this group, twenty completed the documentation for the research, and eight sat down for voluntary interviews. In addition to this process, I redesigned the course I had previously taught so that the module on digital historical games was first (after the introductory weeks) rather than last, so as to provide students more immediately with information that could help them in their thinking about the final project. I encouraged students to think about all of the minor assignments in the course as an opportunity to explore something related to their final project, and thus to use these other assignments to devise a framework for their historical games.

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While I described the basic structure of the course in the methods chapter, before continuing with data analysis of the research study I think it is important to provide some context regarding how the major project for the course (making a historical game) was anchored by the rest of the content that was covered. In general, my goal in structuring the course was to provide as much information, background, and context for the students regarding what digital history is, and include a myriad of examples of historical presentations from popular media, so that they could engage with these as they were devising their games.

Whereas it may be typical for a course on digital history to focus primarily on the use of digital tools and methods in conducting or assessing historical scholarship (digital mapping tools, quantitative data analysis software etc.) my specialty in history is in post-modern history and historical theory, and so this course was framed around a series of questions related to how digital history and the profusion of popularized media histories is changing our (and the publics) understanding of what history is, who it is for, and what is valuable or worth knowing about the past. Every weekly lecture, assignment, and reading (all outlined in appendix F) was designed and selected with this in mind: that the core takeaway from this course should be that the student is asking questions about what history is, what it will be in the future, how society values it, and who has access to it (and to participate in its construction). My objective was to provide information and tools so that students could engage meaningfully with academic and popular histories, and interrogate them intelligently and productively. For the purposes of the course, this would be demonstrated in the games they designed and made for their major assignment.

The course was broken into four modules, which proceeded in the following way: First, students were introduced to some core concepts in digital history, historical representation, theory, and critical media analysis, spending a week each covering digital history, critical approaches to engaging with and analyzing historical media presentations, and approaching digital historical resources like online archives, collections, blogs, and the WayBack machine. The second module focused specifically on digital historical games, and spent a week each on a different example/genre of game, including *Civilization*, *Assassin's Creed*, and *Fallout 4/76*. In addition, one week was spent introducing students to core concepts and theory in digital

historical game studies, looking at the work of Kevin Kee (2011) as well as Scott Metzger and Richard Paxton (2016). This module was intended to provide insight into what historical games are, what they can do, how they represent and enact the past, and how they interpret and construct arguments about the past. The third module in the course was centred around popular examples of media histories, and included photography, film, and television. Students spent a week with each medium, including a viewing of the film *Our Modern Times* and of an episode from the BBC series *Monarchy*. The fourth and final module for the course focused on emerging media and online content, specifically including YouTube, amateur history blogs, binge history from streaming services like Netflix, and popular pseudo-historical fantasy, using HBOs *Game of Thrones* as an example. Examples for this final module, in addition to GoT, also include viewing an episode of the History channel series *Ancient Aliens*, viewing two contrasting news stories (from *Fox News Corp* and *MSNBC*) about the removal of confederate statues and deconstructing each, and viewing content on YouTube from the user *Oversimplified*. Taken together, these modules intended to provide a breadth of examples for the students to consider and engage with, and ample opportunities for conversation to return to the core questions that framed the course (described above).

Data analysis

All of the submitted data (12 identified as men and 8 as women) has been analyzed and is represented here. Overall classification of the data is broken into two key categories having to do with the information present in each individual reflection document, and the skills that the participants demonstrated in their reflecting upon the questions that the document (and final assignment) encouraged them to consider. The first category is concerned with how

participants describe their engagement with the work that they undertook, and whether they are able to understand and identify its relationship to historical making in a clear and significant way. General enthusiasm is not enough to constitute a positive response, as this category needed to link participants' interest in the work with its broader purpose, grounded as it was in illuminating the processes that underlie the doing/making of history. The second category concerns whether, in their responses, the participant was able to demonstrate an understanding of the kinds of critical questions – and the skills which are required to engage with these questions - that the assignment was intending to raise about history and history-making. Crucially, for the purposes of the research such evidence was directly linked to having undertaken the work of the final project. That is, it was necessary that the participant indicate that working on the project, and answering the questions outlined on the reflection document was at least partially what motivated their thinking about these more critical and abstract historical questions.

In both cases, I have outlined a range consisting of three possible designations in relationship to the two major categories under consideration in order to cover the breadth of participant data and responses. In the first case, regarding participant engagement and their capacity to view the work that they did within a broader context of historical making, the three classifications for responses that I have devised are as follows: 1) deep/meaningful engagement, responses that both describe active engagement with the work and accurately position it within the context of 'doing history,'; 2) partial/qualified engagement, or responses where it remains unclear how the participant engaged with the work and whether they viewed what they did as participating in the process of making history; and 3) not engaged, or

responses which may signal engagement and accurately describe the processes ungirding game design and implementation, but which do not link this work in any clear way to doing or making history. For the second category, concerning whether participants demonstrate a positive link between having undertaken and completed the final assignment and an engagement with the more critical questions about history that the assignment and reflection document intended to raise, the three themes for participant responses are as follows: 1) demonstrates a knowledge of critical skills that is linked to completing or describing the final assignment in the reflection document; 2) demonstrates a limited or partial knowledge of critical skills that is linked to completing or describing the final assignment in the reflection document; and 3) no evidence that participating in the course and completing the assignment has had any positive effect on critical skills development.

Definitions of Categories for Engagement

In order to provide context for what constitutes a particular thematic response it is necessary to provide some examples from participant data. Deep/meaningful engagement highlights a meaningful engagement with the assignment that is linked to 'doing' or making history. Consider for example part of the response to a question given by one participant that asked them to measure their relative level of success on the assignment: "Finally, I got everything I expected and more out of the assignment, particularly a greater appreciation of the intricacies that come with balancing history and enjoyable gameplay" (Alex, 2). In this response, the participant links undertaking the work of the assignment directly to a greater appreciation of the forces that constrain historical making in the context of making a game. In a later answer, they further generalize this acquired knowledge:

> Drawing from this new perspective, I believe some of the elements that work in concert to produce history are: a goal (the history that is to be told), the method (the media or mechanics that tell the story), a perspective (the underlying decisions that guide how the history will be shaped, including its audience) the evidence of that history and finally, the limitation (the aspects that narrow the scope of the history) (Alex, 4).

Again, engagement with the assignment has encouraged the participant to think about how history gets produced (created) in a clear and significant way. The thematic designation of deep or meaningful is intended therefore to denote data that indicates a positive connection between doing the work and thinking about historical making, as this example does. Responses which achieved some level of clarity in this regard were labelled with this designation.

Qualified/partial engagement denotes responses to these questions where it remains unclear that engaging with and undertaking this assignment successfully encouraged the participant to link the work they did to broader considerations and questions regarding historical making and practice. So for example, if a participant took the first step outlined above, of mentioning how making a game forced them to consider some historical questions in direct relation to game design and play, but did not seek to broaden this view and consider history more generally, I labelled such information as ambivalent or unclear. While the first step is useful and important to take, the premise of the assignment was such that in pursuing the final objective (making a game) students would come to see what they were doing as similar to what all historians do when they undertake historical work – make choices, interpret evidence, ascribe motive, present arguments, and write with an audience in mind. As a consequence, it is also more difficult to be as confident in this categorization as I am in the one classifying

deep/meaningful engagement, because it often remains unclear how close the participant comes to satisfying the criteria. For example, one participant very clearly outlined how the game making process encouraged them to think about these questions in relationship to the specific game object:

> The game has its limits to how effective as a teaching method it is. Allowing for an unlimited number of attempts, allows for the player to repeat the experience with the hope of memorizing the correct answer to each question. The game is capable of introducing the player to new facets of history by asking for knowledge which they do not know and introducing the answer which may encourage further exploration (Nick, 5-6).

It is evident in this response that the process of designing the game has encouraged the participant to think about how the structure of the game affords some possibilities for interaction and 'teaching' while constraining others. However, this answer is also directed toward the specifics of the object being produced, and is not clearly generalized in such a way that confirms that the respondent views their own choices within the matrix of decision-making that historians participate in.

The category of non-engagement is more straightforward, and I have thus far found only one critical reflection document submitted by a research participant that I would place in this category. This information may accurately describe the processes involved in game design and production, but it does not link them in any clear or meaningful way with history at all. That is, either in the context of making an historical game, or with historical practice more broadly. In this example the participant is clearly knowledgeable about the game design and production

process, but this work is not connected to history, or the course, or the questions the assignment was designed to raise, outside of a basic description of the topic chosen by the participant and their group: World War Two code breaking. Other than mentioning this, the participant rarely mentions history at all, and instead focuses on a discussion of the design process almost exclusively: “My takeaway is that creating even a halfway decent game is (pardon my Shyriiwooki) bloody difficult. There is a lot of moving parts involved, from the actual design to the programming and art. It takes drive to get it done; passion to overcome the issues that may pop up from any direction, technical or social” (Brian, 2). This response was given to the seventh question provided on the reflection document, which asks ‘what are your major takeaways from the assignment? What insights into history, design or learning, if any, do you believe you gained by participating in it?’ This question mentions history explicitly, and though it does not direct an answer that must mention history, it was most common in this response that participants would link their work on the game and questions it raised to historical practice. It is equally clear that this example does not, instead focusing solely on design. Now, it is crucial to state here that the absence of an answer which would indicate deep or meaningful engagement is not in any way a reflection on the participant, their skills, aptitude or knowledge. It is entirely possible that students who are well aware of how this assignment desires to reveal the machinations of historical making may choose for a myriad of reasons not to state so explicitly, even when asked. However, it does mean that I could only possibly glean such insight by assuming or inferring their knowledge on an unreasonable basis, which is why this classification designation exists, to avoid that potential issue. Non-engagement is not useless,

and is not reflective of any absence in learning or subpar evaluation of work, it is simply lacking the details necessary to label it more directly.

Definition of Categories for Critical Skills

The assessment of critical skills follows a similar pattern, having been broken down into three categories as well, though with a rather different set of expectations that outline each one. Over the course of the entire term, I repeatedly encouraged all students to view this assignment – making an historical game – as an opportunity to 'do' historical work, and therefore as a chance to consider what is actually involved in the process of making history: what questions get asked, what information is collected, how evidence is weighted, how topics are chosen, how arguments are designed and presented, how interpretation unfolds etc. In the critical reflection document that each participant was responsible for submitting, I included three questions which, to some extent, attempted to extract answers from them that would include their thinking about these more theoretical and methodological historical considerations related to the work that they did on their respected projects. To clarify, the reflection document had **no explicit** instruction that students must respond to questions in such a way as would demonstrate a knowledge of critical skills; rather, these questions were simply the mostly likely to result in information from participants that could reveal they had thought about these more critical questions related to history and historical making while working on their projects.

These were questions five, six, and seven on the reflection document, and they asked the following:

- 5) What questions did the assignment raise for you about your topic, and how did you pursue them (i.e. how do I present this subject via this medium? How do I seek out information about it? What kinds of questions am I interested in asking and answering about it?)
- 6) This assignment asked you to consider **how history is made** as you navigated making your own history in the form of a game. Can you describe how you encountered and engaged with this question as you worked through the assignment? Did this assignment encourage you to think about historical making in a way that was new or more focused? Finally, drawing from your own experiences, can you explain (in your own words) the elements you believe work in concert to 'make history',
- 7) What are your major takeaways from the assignment? What insights into history, design, or learning, if any, do you believe you have gained by participating in it?

It is possible – and indeed the case – that participants also included information in other answers which demonstrate critical skills and link them to having completed or described the project they undertook, but these three questions were the mostly likely to generate this kind of response because they each encouraged the student to think about their work in a more abstract way. It is important to state here, before going through each category, that no question can force a student to demonstrate skills that they do not possess, no matter how forward or explicit. Question six directly asks the participant to think about 'how history gets made' but any assessment of whether or not they demonstrate the critical skills necessary to reflect meaningfully upon that question is derived solely from their response, from the

language they use and the insight they offer into thinking about the processes that underlie historical making. Certainly, I wanted to push all of my students into this realm of thinking (about meta-historical concerns/questions), but only they can illuminate whether or not this project was helpful in doing so for them.

Clear demonstration of Critical Skills

The first category related to critical skills includes responses which demonstrate a capacity to engage critically with the questions that the assignment and the reflection document were intending to raise about history, and link this engagement to having undertaken the assignment and/or describing it in their participant responses. This does not necessarily mean that the assignment itself is responsible for the development of these skills, but, it does mean that the assignment **encouraged the participant to think about history and historical making in a nuanced and abstract way** that can help continue in the development of critical skills that the participant may or may not already possess. Answers in this category contain a clear command of the language involved in describing abstract processes and a capacity to view ongoing work from multiple perspectives. To a large extent this mirrors what I outlined in the previous chapter discussing the research study that took place at York University, and so I will be brief here. A critical view of history is one that expresses a clear and confident understanding of how historical work is shaped not just by evidence and context (though these are important) but also by subject position, argument, power, ideology, race, gender, class, and sexuality. Even this is hardly a complete list, but it does emphasize how history is not the progressive and linear narrative it is often packaged and later disseminated as in educational formats. Responses that fit in this category demonstrate at least a basic

understanding of history as a discursive process (though of course they may not use this terminology), one that involves a multitude of factors, debates, and conversations about that past that are fundamentally unsettled and contested. Finally, participants with responses that fall in this category must clearly link this thinking to the work that they undertook on the major assignment for the course, and/or their impressions of it as described in the reflection document.

I have two examples that I will share here. The first is from Alex, part of a group that made a World War Two code-breaking game. In his answer to the sixth question, Alex clearly demonstrates a critical reflection upon some of the questions that the assignment intended to raise, and links his thinking about these questions to the work he did on the project:

> I believe that this assignment forced me to engage with this question [how is history made] in a more nuanced way than writing an essay would have accomplished. With an essay, I am simply using history and historical interpretation to craft my own interpretation… Making a history game is different because I am not simply crafting my own interpretation of history, but I have to actively think about how I want my actions and choices regarding the history I am telling to influence the player who is engaging with it directly (Alex, 3).

It is evident in this response that, as a consequence of the project Alex participated in, he expanded his view both of how history is made and *who it is made for*. In this answer he links the work that he does to its potential impact on others and reveals why this is crucial to think about when considering what exactly it is that history does (and who for). In addition, Alex actively identifies his own subjectivity and acknowledges that he bears responsibly for the

choices he makes, and how they affect the history he seeks to construct. This conjoins his critical assessment of history from an epistemological perspective with a recognition of the importance of the subject/author of history. Ultimately, I would want Alex to think about textual history in the same way rather than as a contrast or a separate thing, but that does not detract from his response clearly demonstrating a critical reflection of history that is connected to the work he did on the assignment. In the second example, Kate describes her work on a counterfactual and critical (see Paxton and Metzger 2016) historical game, and explains what choices led to her groups' settling on this kind of story presentation.

Unlike Alex, Kate wrote her reflection document more as a singular essay, without defined responses, but this stylistic choice has no impact on the way in which she describes her work on the project, and the game itself: "Our video game *Elizabeth* strives to follow connections between the past and the present by questioning the making of history. It explores how the past is conceptualized and how historical ambiguity can have both emancipatory and restrictive potentials" (Kate, 1). Because Kate and her group decided to make a critical historical game, the kinds of abstract reflections about history that I would look for as evidence of critical skills are almost built-in. And judging from her responses, this is the intended outcome:

> We were also acutely aware of our own privileged role in writing history by making this very game; we, as much as any historical researcher, would also be complicit in determining who and what history is remembere[d]. As such, we decided that the best option would be [to] bring these theoretical concepts about history into focus. To do so, *Elizabeth* would be a game with its central theme as history's ambiguity (Kate, 2).

Again, as with Alex, reflecting upon the critical questions that the assignment (and the course) intended to raise for students, Kate links her and her groups thinking about them directly to their work – in fact it shaped the very style of game they made – and while this does not mean that she acquired such skills from having undertaken the project (I think it is very clear she did not), certainly the project encouraged her to utilize and expand upon these skills in order to better understand history and historical practice. Kate actually assigns this outcome to the course and project herself, remarking that "as three students from non-historical fields, this class was one of the first places we encountered a critical approach to history" (Kate, 2). Lastly, and again as with Alex, Kate actively acknowledges her position and those of her group members as authors who occupy particular privileges in their production of the past. As with the first example, this marries epistemological considerations of a critical view of history and historical work with those attendant to subjectivity and authorship.

Partial demonstration of Critical Skills

The second category related to critical skills demonstrates a limited or partial knowledge of these skills that is linked to completing or describing the final assignment in the reflection document. This classification also shares something in common to the partial/qualified view of history demarcation given in the previous chapter, and that is that it is the most difficult of the three classifications related to critical skills to determine. it is, simply put, difficult to discern when a participant is demonstrating some limited understanding of critical skills (and still linking this to having undertaken the assignment) but is not clear enough in their description, language, or thinking to have their responses classified as a clear demonstration of critical skills related to historical thinking and making. It is therefore possible for there to be disagreement

over what exactly distinguishes one type of response from another. Though, I will state again, that in order for a response to clearly demonstrate critical skills it **must** reveal a comfort with abstract thinking (and language) and a view of history as a discursive process**.** In contrast, an answer in this category will clearly reveal that the participant is asking questions about the work they have done, and its relationship to history; but, it remains unclear how confident they are that they can articulate historical theory and practice. Alex and Kate were able to describe history as a process, and to include key elements of that process in their description, like interpretation, subject position, topic, and ambiguity. Answers in this category will do some of that work, but they do not reveal a confidence in understanding historical practice in the same way. As such, they are better labelled as limited rather than clear demonstrations of critical skills either already possessed or gained as a consequence of having undertaken the assignment.

I will share one example of information that I have designated in this category, the responses offered by Victoria in her reflection document. As with Alex, Victoria offers the most insight into her thinking about history in relation to making a historical game in her response to the sixth question, included at length here:

> This assignment made me think about how history is made a lot, as I realized throughout my research that the facts which I was finding would have to be used to portray the message that I wanted to portray through our game. I often found myself altering things, especially as I tried to construct my level and create challenges. Although creating a game might be a different way of portraying history compared to something like writing a textbook or making a documentary, it's the same kind of process working

> to make a point and figuring out how evidence supports this point… overall I believe that the two elements that work in harmony with one another to make history are 1) factual evidence and 2) the desired portrayal of a certain time (Victoria, 4)

In this response, it is evident that Victoria is thinking about what history is, and how it is made, in the context of her own work on the assignment. She makes this connection explicitly when she describes how she worked through the process of creating her level for the game. In addition, she correctly identifies components of historical practice like evidence, topic, and, though indirectly, interpretation. Again, all of this is linked to the assignment, as she outlines in the opening sentence of her response. What is absent, though, is a clear articulation of how these various processes actually define historical making broadly. Whereas with Alex and Kate there was a clear outline of how their work on their respective games involved making choices and a linking of that process to the making of history, Victoria is less confident. In the last sentence I believe there is an attempt to apply what she has learned (and what she herself did) to history in a broader way, but critical elements of historical making are absent from her description, and those included are still vague. ‘’Factual evidence’ maintains a narrow and reductive of view of the possibilities for what can constitute evidence in historical work, while ‘the desired portrayal of a certain time’ sounds like a mixture of argument and interpretation, but without being clearly one or both. Alex and Kate explicitly outline history as a process, as conducted for a reason, as consisting of interpretation, which is why their responses are categorized as demonstrating critical skills related to understanding history and historical practice. In Victoria’s response, it is evident that she is thinking about history, about what

makes history, and, that her thinking is motivated at least in part by her work on the project. However, the clear outline of history or historical practice is not present in her responses.

Does not Demonstrate Critical Skills

The last category related to critical skills is relatively straightforward, and not particularly difficult to determine. It consists of responses from participants that do not demonstrate any knowledge of critical skills related to undertaking or describing the final assignment. For responses that fall under this category, it is not evident that the assignment or the course more generally had any positive affect at all in encouraging them think about critical questions related to history and historical practice, and there is no evidence in their submitted data that they have done so. To be clear though, this does not necessarily mean that the respondent does not possess critical skills, and any assessment of critical skills is not an intelligence contest designed to generate a hierarchy of smart versus not. It is entirely possible that the course and the assignment simply did not resonate with the participant in the intended way, or that they interpreted the questions on the reflection document differently from how they were outlined. Or, finally, that they just were not terribly interested in thinking about history or historical making in a more abstract way (which is distinct from any claim that they are not capable of doing so). Ultimately, whatever the reason may be, any responses classified in this way simply do not reveal any clear evidence of critical skills. The language and concepts that could be identified in this way are absent. Because questions five, six, and seven were engineered to some extent to encourage participants to think about history and historical making, it was extremely uncommon that I received responses from them that I would place in this category, because any attempt to describe their thinking about the work that they did, or

about history, or about historical games, necessarily demonstrates at least some limited understanding and use of critical skills to engage with the question on the document. In fact, I only have one example of a participant who did not engage with any of these three questions at all, and thus did not provide responses which I could classify as demonstrating clear or partial knowledge of critical skills. And, because they simply did not answer the question as it was asked, it is impossible to know whether the absence of critical skills is evidence that the participant has not developed them, or whether they were simply more interested in providing an idiosyncratic answer to the questions on the document. Having defined and gone through the relevant categories and thematic designations for the study, the next section will introduce the assembled macro data from the research, followed by an analysis of some specific examples from participant responses.

Macro Data breakdown

Contained here is a breakdown of the data that has been analyzed into the two primary categories and related subcategories represented here on a macro scale. This breakdown applies to the twenty participants (n=20) for whom data has been analyzed. Included as well is a table (table 1) that maps out these findings in a condensed and concise manner for accessible viewing, as well as a graph that also provides a breakdown of the data along an information category/critical skills category axis (figure 6). After analyzing all twenty reflection documents submitted by participants in the study, the breakdown of the data and broad findings of the study are as follows: the number of critical reflection documents gathered from participants and analyzed that have been identified by myself as revealing a deep/meaningful engagement with the assignment, and which demonstrate a knowledge of critical skills on behalf of

respondents that is linked to having completed or described the final assignment is **eight**. The number of documents gathered from participants and analyzed that contain deep/meaningful engagement, and which demonstrate a partial or limited knowledge of critical skills on behalf of respondents that is linked to having completed or described the final assignment is also **eight**. There are **two** examples of documents that reveal a more qualified or partial engagement with assignment, and which demonstrate a limited or partial knowledge of critical skills linked to having completed or described the final assignment. There is **one** document that does not indicate any real engagement with the assignment (it does not describe or relate the work undertaken to history in any significant way), and does not demonstrate knowledge of critical skills linked to having completed and/or describing the work done on the final assignment. Finally, there is **one** reflection document that suggests a qualified/partial engagement with the assignment, and which does not demonstrate knowledge of critical skills linked to having completed and/or describing the work done on the final assignment. In the twenty reflection documents submitted, there were no examples of documents which reveal deep/meaningful engagement with the assignment and no evidence of critical skills, and no documents that reveal qualified/partial engagement with the assignment *but do* demonstrate knowledge of critical skills. In order to provide a more detailed breakdown of some of the data, the next section of the chapter will outline a few specific examples of reflection documents from participants.

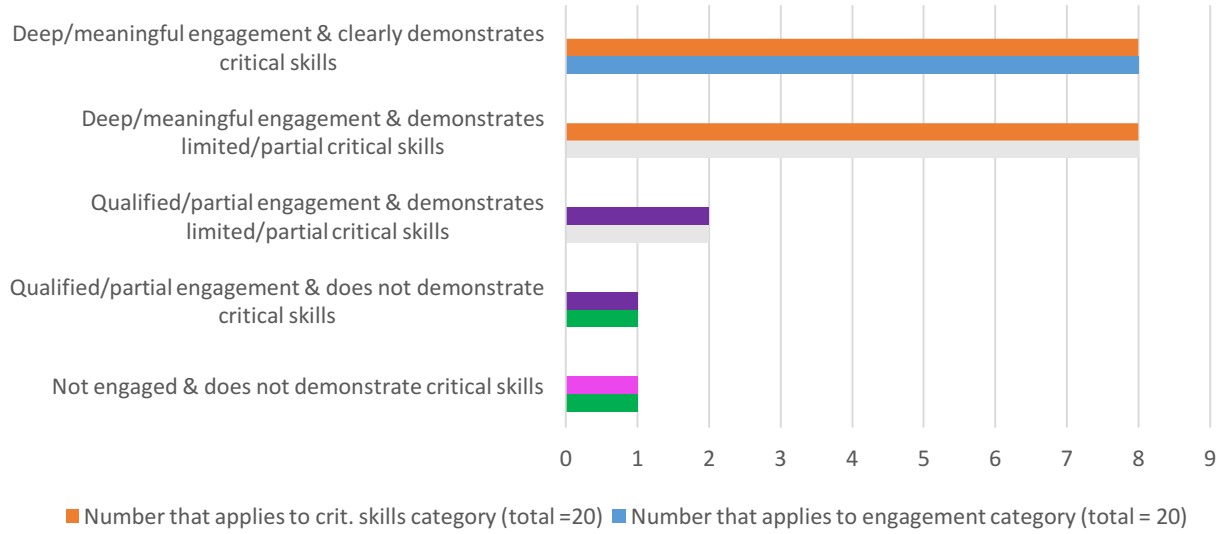
Table 1

Breakdown of macro data for critical reflection documents

Engagement Categories	Reflection Documents (n-20)	Critical Skills Category	Reflection Documents (n=20)
Deep/Meaningful	16	Clearly Demonstrates Critical Skills	8
Qualified/Partial	3	Demonstrates Limited/Partial Critical Skills	10
Not Engaged	1	Does not Demonstrate Critical Skills	2

Figure 6

Re-thinking history education, data breakdown



Document examples

Categories – Deep/meaningful engagement. Clearly demonstrates critical skills

Tom

Tom's answers in the critical reflection document reveal a number of things that I am classifying as deep/meaningful engagement and a clear demonstration of critical skills. That is, information which demonstrates a positive link between having undertaken and completed the assignment, and an advanced and critical understanding of the kinds of questions that the assignment was intending to raise about history and history-making. Tom expresses confidence in the outcome of his work (and that of his group), which he believes has been a "smashing success" (Tom, 1). When describing how his group navigated representing this topic in a game, Tom explains the processes which underlie historical making and representation more broadly, and demonstrates an understanding of the decision-making that goes into historical production. This is evident for example in how he describes modeling their game around others of the same type: "representing our topic in game form was not too difficult we managed to replicate the formula of other dating sims where one must complete tasks for their lady and select the correct dialogue options in order to win over her heart eventually" (Tom, 1). This indicates a recognition of a deliberate choice in form that necessarily constrains the possibilities of historical efficacy, a reality that is also addressed later in the same answer when Tom describes acquiring information about his group's topic, "I did indeed resort to utilizing some secondary digital resources such as movies TV shows and video games. *Crusader Kings II* helped give visual cues on where territory was located and what the characters looked like and how old they would be in the period our game takes place in" (Tom, 2). For information regarding

how Tom understands that these kinds of choices are actively shaping the history he generated, I move to his answer given to the sixth question: “history is malleable, rigid enough to be built upon, but flexible enough that it can be interpreted and regarded in a variety of different ways. We saw this in our assignment” (Tom, 2). What is crucial here is that the expression of a critical reflection of history as subject matter is linked directly to the work he undertook for this assignment.

Developing, researching and ultimately making a game helped to reveal these processes at work even if they are not responsible for Tom’s initial introduction to, or understanding of them. Again, this is clear in how he closes his answer to the sixth question: “In essence, history is the result of biases, artifacts, evidence, societal norms, and cultural standards blending together to present a purposeful assembled image of the past. *That is what our game attempted to do as well*” (Tom, 2). Here it is not only evident that Tom understands in a critical way the complex processes which undergird historical production, but that, via his participation in a project like this one, he is able to identify himself as actively participating in this process as well. Again, as with the examples from Alex and Kate, Tom is marrying the epistemological complexity of history with an understanding of his role (and that of his other group members) as shared authors in its production in their development of a historical game. Thus, to this point in the document the data reveals that Tom has zeroed in on the benefits of creative licence, the confidence that comes with the perception of success, an understanding of the intellectual processes which underlie their decision making, and evidence of his own critical skills surfacing in his thinking about his work. In his answer to last question on the document, it is clear that a willingness to engage with this type of assignment is partially predicated on its distinction from

the usual forms of historical work undertaken in the university course: “this assignment was a breath of fresh air. I’ve written so many essays and exams that this class, in general, was a delight to participate in… making a YouTube video for an assignment and working on a game are all very creative and refreshing ways to run a course” (Tom, 3). The success of any project that attempts to impart some learning or educational value depends greatly on its capacity to engage the learner in what is being undertaken. The value of engagement therefore cannot be understated, and in this example the creativity of doing this work invited a level of meaningful engagement that is apparent in his response to, and evaluation of the assignment in this document.

Categories – Deep/meaningful engagement, demonstrates partial/limited knowledge of critical skills linked to completing/reflecting upon the final assignment

Jessica

Jessica’s answers to the questions outlined in the critical reflection document indicate a positive engagement with the assignment and the opportunity to become involved in producing/making history by developing a historical game. Importantly, these things are considered together in her responses on the document. For example, early on she outlines how making a game provided an opportunity to gain new skills and work with history in a new way: “I got a lot out of this assignment; learning about the Louvre, making a game, and being creative but also accurate within that. I never thought I would make computer game, so it was interesting to do so. After presenting, I felt pretty good about the final product of the game” (Jessica, 1). It is intimated here not only that she engaged positively with the work, but felt ultimately as though it was rewarding to complete, expressing that she felt satisfied with the

final product. Importantly, this engagement in linked directly to doing historical work as well: "we all did research on the Louvre and planned the layout of the game and how we wanted it to be made" (Jessica, 1). The historical and developmental components of the assignment are not viewed separately, but in concert with one another. The work is described as having been engaging, and is also understood as historical. Towards the end of the document, Jessica remarks that she "liked that it [the assignment] was different than my usual history assignment,' and further that "this history class and assignment was more interactive than I have ever known a history class to be. This assignment was relatively fun to do and used creativity almost as much as academic work to make a historical game" (Jessica, 3). Again, the connection is established by the participant not simply that the assignment was engaging, or different, or interactive, but that *it was an engaging way to do history and historical work*.

The question remains, however, as to whether working through the assignment and its related questions encouraged Jessica to think more deeply about how history gets made and the constituent features of historical work. Participant responses that clearly demonstrated a knowledge of critical skills, and related this to working on the assignment or to thinking about questions related to the assignment included in their responses language that indicated an understanding of how this assignments core questions (regarding the making of history) extend outwards to historical practice more generally. That is, these answers would relate some of the work that was done on the assignment to questions or considerations of how historical work is done in general (what evidence did I assemble, what stories did I choose, how did I present them, what was my position or interpretation of the information and how was it ultimately expressed in this product). In Jessica's case, working on the assignment encouraged her to think

about some of these questions more directly. Consider for example her response to the sixth question: “the assignment highly encouraged me to think about historical making in a way that was new, as before this class I hadn’t really considered using a game to create history or anything digital,” and in a later section of the same answer she expands upon her initial response as well, remarking that “we used the question of how history is made when engaging and building our game to make sure it was accurate and historically true (or mostly true). The elements that I believe work in concert to make history include; accuracy, facts, a telling of events, and key players or past figures involved” (Jessica, 2). In these explanations it is clear that working on the assignment and developing an historical game encouraged Jessica to think about some of features of historical work in a different way than other kinds of assignments had previously, even if this thinking remains to some extent epistemologically limited in its scope.

Because of this, her reflection document does demonstrate some partial or limited understanding of critical skills that are linked to completing and describing the assignment. However, there is a degree of nuance that is also absent in these responses, and from the document generally, that is important to note. The above sections of her response to question do indicate that she is thinking about how history works and what it consists of, but she does not connect these considerations to historical practice generally. That is, she never indicates that the questions that making the game raised for her about historical making in specific relation to producing an historical game can also be applied to ways of thinking about how to make history more broadly (or indeed, to an understanding that the choices she and her group makes are of the same kind as those always being made by historians and those doing work in

history). As a consequence, while her responses do indicate a reflection upon some of the crucial questions regarding historical practice that the assignment had hoped to encourage students to think about, in her reflection document this consideration remains limited to the specific project she worked on. This is not an indictment of the potential for an expansion of her thinking about history towards the expression of a clearly critical view of history, but a recognition that this outcome is not present in her answers.

Categories - Not engaged, no evidence which demonstrates that the assignment encouraged or had any positive affect on critical skills development/expression

Brian

Brian's critical reflection document is short, succinct and generally well-written. it is concerned primarily with the technical components and related challenges of game design and implementation, and mentions history only sparingly. While I designed the document so that the questions would provide guidance for answers if the students found such instruction helpful, I never explicitly stated that the document had to contain specific information, outside of an individual description of the processes involved in completing the final assignment and their thoughts on the project. Thus, students in the course, and participants in the research, were ultimately free to decide for themselves what subject matter related to the assignment to focus on. History is primarily mentioned in the document in the early responses which detail how the participant and his group settled upon a theme/topic for their game. For example, in their response to the first question, Brian describes how his group decided upon World War Two as the generalized subject for their game: "our group, early on, decided to focus on World War 2 as the time frame for this project. This was because everyone generally found that most

topics related to the goings on for those six years could be interesting" (Brian, 1). Apparent in this language, however, and even more so in his later answers, is that Brian was considerably less invested in the historical components of the work and much more focused on game design and development. This is something that he indicates himself, in his answer to the third question:

> the subject of the project was by majority vote. As we started throwing ideas around, WW2 became a point that everyone knew and we figured that because it was a relative recent, world wide event, it could potentially branch to many things… I personally handled very little of the research. Due to my knowledge and skill of programming, I was in charge of the actual development of the game (Brian, 1).

Answers such as these do not indicate engagement with the historical components of the assignment, though his responses in general do show that he was passionate about the design and development process, and invested considerable thought into it. In the absence of him articulating the link between the work that he did, and the process of making history that in large part was intended to explored via completing the assignment, it is impossible to infer whether he grasped how being involved in making this historical object could be related to the questions and issues that define the making and producing of history more generally.

Again, it is important to stress that this does not reflect any failing on the participant, or their completion of the work; rather, it suggests that his focus was more narrowly confined to working with software and building the game. Indeed, the vast majority of Brian's answers are devoted to outlining and describing the game development process as it unfolded working with the software. For example, Brian provided his most detailed answer to the fourth question on

the document, which asked students to describe how they encountered and responded to challenges in dealing with software: “there were a few challenges on the software side. At first, I explored RPG Maker and its related documentation (tutorials, syntax, plugins). I quickly disillusioned on its overly structured tile-based framework… I went with the Unity 3d engine due to previous experience and larger pool of knowledge about the engine and the language it used” (Brian, 1). In his responses to the questions, the topic of the game is not even mentioned, nor is any of the work he has done on it connected to ‘doing history’ in any significant way. His work shows there is passion for exploring and explaining the design and development stages of the game, especially as he was working and tinkering with the software and imputing data on the basis of the research he received from his other group members. However, he views the challenges he encounters, and the decisions he makes regarding how to translate information into code (and ultimately into the finished game) as focusing primarily on the gamic element of product development, and not historical thinking or making.

Even the sixth question, which most explicitly asks students to consider how the work that they had undertaken for the assignment mirrors the work that historian do (and therefore invites them to consider how history is produced) elicited a response concerned not with history but with gameplay:

> As this was supposed to be a game, I constantly had the question in my mind ‘is this/would this be fun?’… when thinking about how history is made in the sphere of games, I think of cult classics like ‘The Witcher’ or ‘Undertale’ or even “stardew Valley’, where it went from being a simple game to a worldwide phenomenon. Those games

> ranged in genre and mechanics but the mechanics and stories, both novel and generate by players is what made them so much more (Brian, 2).

In this response, and in the document generally, there is little that suggests Brian was thinking about how developing this game about history, making choices regarding what to focus on, what stories to tell, how to tell them, what information to include, what demands to make of players, what tools to afford them, and what outcomes to provide for them, was also intending to encourage him and other students to consider this process in a broader context, and to think more critically about the processes which underlie historical making more generally. Does this mean that Brian did not or was not able to make such a connection? Not necessarily, but it is not evidenced in his critical reflection document. Thus, both in its potential to reveal a positive engagement with the assignment as doing historical work, and to demonstrate a knowledge of critical skills that is linked to having undertaken the work of the assignment and thought about it in a broader (or perhaps more nuanced) context, Brian's responses do not illuminate either, though they do demonstrate a keen interest in the design and development process and at least a passing satisfaction with the outcome of the game: "well, we got it working; so, I'd call that a success" (Brian, 1).

Sample Projects from Students

I wish to end the discussion of this project by briefly introducing some examples of the finished projects that participants (and students in the course) produced. When I outlined the major assignment for the course, some of the details were left unsettled so as to provide an opportunity for me to respond to their questions and feedback over the term. As such, what I ultimately allowed for was broader than I had originally considered, and came to include analog

as well as digital historical games. Two groups took advantage of the analog option to create board games, while most other students used software to create a digital game. A couple of students in the course ultimately wrote research essays, though none of them were among those who were participating in the research study. Of the digital games, the software options I originally outlined included Twine and RPGmaker, though if students expressed a familiarity with other software I was open to other possibilities as well. Indeed, a couple of groups used neither of the aforementioned options, opting instead for Cobra. For any group using RPGmaker, I purchased the software for them using money from the grant that was awarded for the project. The final projects that are included here as examples do not represent all of the projects completed in the course, and are not intended to provide a complete overview of the work that was produced. Rather, they are intended to provide insight into some of the games that students produced. The descriptions of the examples provided here will also include reference to some of the information that the student's involved in making them have given in their critical reflection document, especially in reference to how they thought about making these games and what steps were involved in production. A more analytical framing of this took place in the previous sections of the chapter, and this section is focused instead primarily on introducing some of the work undertaken in the course to offer some examples and context. I have selected these examples because they reflect work that clearly engaged with the core questions the assignment was intending to raise regarding historical making and knowledge building.

Medieval Dating Simulator

The first example I would like to introduce is a Medieval dating simulator that was created using RPGmaker and is set in a twelfth century court. As outlined by one of its creators, the game was designed to "represent the social history and culture of courtliness found in the 11th to 13th centuries" (Adrian, 1). In a later answer, Adrian goes on to outline what this means:

> the topic of courtly love, itself, is an example of historical discourse. The debate sees that many scholars question its historical accuracy. We decided to represent the topic as what it is first, a fictional story created in the Medieval period. We knew that the first scene had to depict a troubadour telling the tale of courtly love. This debate, however, made us realize that there should be a focus on telling the fictional story in some historical basis. We chose 1175 as our time so that we could incorporate famous medieval historical figures (Eleanor of Aquitaine, Philip of Flanders, Henry the Young King… Due to time crunch, we chose the historical re-enactment route, as it gave the best historical knowledge of courtly love to the player (Adrian, 3).

In this game, the player takes on the role of a knight in the court attempting to court a noble lady. Gameplay consists primarily of dialogue choices which are interspersed with combat sequences that are meant to serve as a reference to tournaments. If the player chooses the correct dialogue option, and succeeds in combat, the game continues and the affections of the lady may be earned. However, if they choose wrong – that is, if they do not provide the response most felicitous to the period and culture of the court, the game ends abruptly and the player must start over. An example of the aesthetic of the game can be seen in figure 7, while an example of the dialogue choices can be seen in figure 8.

figure 7 – loading screen for the medieval dating simulator game.

figure 8 – an example of dialogue from the dating sim.

Elizabeth

The second example I will include here is a twine-based game, *Elizabeth*. *Elizabeth* introduces the player to figure of Elizabeth, who is writing in her diary in 1645 during ongoing witch accusations and trials in her area. The player receives this journal entry as an email, and is then tasked with trying to determine whether the sender is a real person, or if the email is simply spam. Throughout this process, they are introduced not only to Elizabeth but to other historical figures, and to a generalized knowledge of witch trials as well. This game is among the most complex that were developed, in large part because the group chose to take an explicitly critical approach to their topic and game design. In their critical reflection document, one of the group members introduces Kee, Metzger and Paxton's typology for historical games, and then assigns *Elizabeth* the designation of critical historical historical game: "upon reading this article, we found that this type [critical/postmodern] of game represented what we have learned about history" (Kate, 3). As a consequence, the ambiguity that surrounds both the figure of Elizabeth and the period she writes about are intentional, as one of the group members points out in their reflection document:

> I feel that our message comes across through the setup of the game. We learned in this class that history is messy there is no right answer, no definite storyline. It is a subjective discipline, with room for argument and disagreement. This was the main theme which we wanted to interact with through our gameplay… We all agreed that we wanted to create a critical game which questioned normative history (Ashley, 1-2).

The player cannot be certain that Elizabeth is real, though she does mention other historical figures who are, and events which have a real history (witch trials). Instead, they are

meant to play through the dialogue choices offered in the game more than once, in order to generate a more complete picture of the information being presented to them: “we made a variety of narrative paths to be explored and made all of their endings open: while the player cannot continue any further, they can return to the beginning and attempt to figure out what was real and what was not” (Kate, 4). Examples of the dialogue that is espoused by Elizabeth, and the options made available to the player are in figures 9 and 10.

figure 9 – an example of dialogue options from the game, Elizabeth.

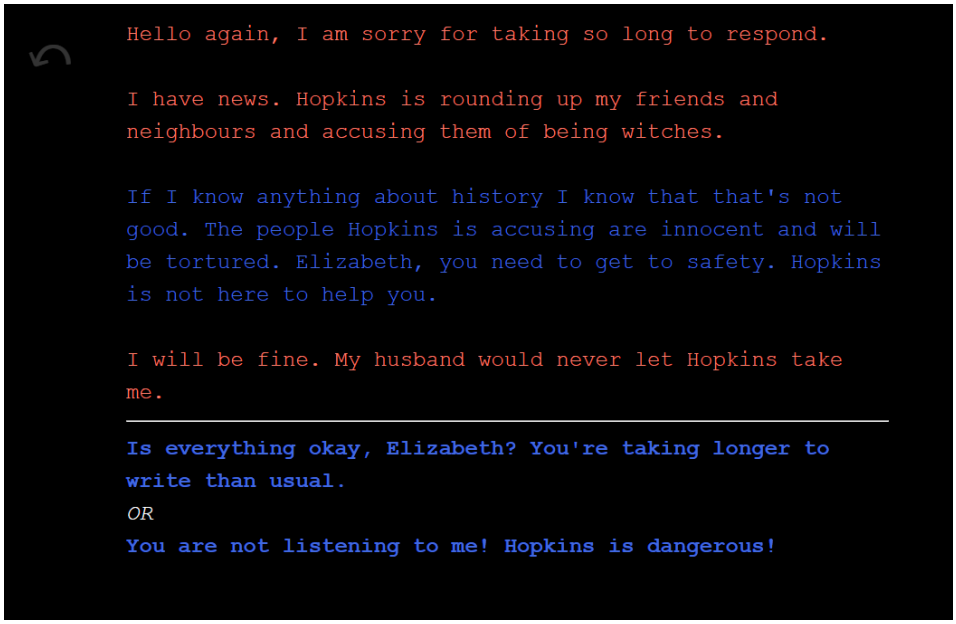


figure 10 – a second example of dialogue options from the game, Elizabeth.

In both of the examples provided, it is clear that students in these groups engaged meaningfully with their subject, and took advantage of the opportunity to think about and produce historical work in a novel way, distinct from the analytical essay. Not every finished project achieved this caliber of detail or nuance, but what I hope these examples show is that at its best a project like this provided students with a space to actually think about the processes they were engaged in as they navigated through them. Adrian and Tom, both members of the group responsible for the Medieval dating simulator, articulated that making decisions for their game regarding content, story, topic, setting and purpose forced them to wrestle with questions about the kind of history they wanted to present, and link their decision making to historical production in a way that they were able to talk about in their own words. The same is true for Kate and Ashley, who worked together on *Elizabeth*. In their case, they knew before producing the code that they wanted to make a 'critical' game which could reveal to the player the ambiguity of the historical record, in this example relating to the circumstances regarding

the period of witch burning. They understood that complete and faithful answers alluded not only them, but everyone who encounters the past seeking complete answers, and they found a way to articulate this tension in their game, where the player cannot ever be totally certain whether they are receiving traces of history, or are a part of some practical joke.

Conclusion

In this chapter, I have outlined a research study that took place at Carleton University in the Fall of 2019, and centered on a course I was teaching on digital history. The crux of the course, and of the project, was the production of an original historical game, which served as the major assignment for the term. The goal of the research study was to collect data from participants as they produced these games and analyze it to determine whether and to what extent completing this kind of productive project can engage learners in history and provide them with a novel perspective for viewing and tackling some of the critical questions regarding historical making and knowledge building. Rather than a performative assessment exercise that would attempt to gauge learning outcomes along standard measures, data here comes directly from participants, in the form of their own responses to a series of questions compiled together into the critical reflection document. In this writing space, participants reflected upon their work and the process of making a historical game, and provided insight into the challenges and questions that it raised for them, both related to design and game creation, and history. As this chapter has sought to reveal, answers were quite varied, and reveal a constellation of responses which have been classified along categories of engagement and the demonstration of critical skills. Of the twenty available reflection documents, fully sixteen of them indicate that students were enthusiastically engaged with the work, and that they were able to at least

partially demonstrate a comprehension of critical skills that were linked to the assignment they undertook. Very few students expressed either a lack of interest in the project or an absence of critical skills connected to the questions that doing this work was *intending to raise for them*.

Often in their reflection documents, participants expressed how this kind of assignment, being novel and quite different from essay writing, provided them with a context and perspective that helped them to *think differently* about historical work. For this project, they were thrust into the role of producers, and forced to grapple with questions about history that essays often penetrate in only a limited way, especially after they become routinized as a form of assessment. I am certain that the novelty of this assignment helped, but I want to stress that there is more to it than simply the 'something new' factor as well. Students understood that their historical games would be presented and played by *others*, and so in all of their choices related to content and design they were forced to be accountable for the historical material that other players would interact with. It is my belief that this put a (productive) pressure on them to think *carefully* about the game that they were making, and the history it presented. Ultimately, the goal of the assignment, and indeed of project, what to provide an opportunity for students to engage more directly in the process of historical making by having them produce a defined historical object, and then to gauge whether such an assignment could inspire them to ask questions about the processes of history as they worked through it. There is no perfect success, and certainly I was not expecting a clear resolution to my research questions, but I believe the data analyzed here shows that at its best the project did provide an opportunity for participants to actively reflect upon the questions and processes that underlie historical making while they brainstormed and produced their own historical games.

Chapter Six: Playing and Making History

Introduction

The previous two chapters have described the participant studies that form for bulk of my PhD research. Both research studies were framed around three core questions which have been outlined earlier as well, and each sought to investigate them differently. Despite this difference in approach, both projects shared an interest in exploring the possibilities for mobilizing historical games in history education, in order to develop critical historical skills. Much has already been said about how these projects should be understood as in conversation with each other, and with other existing research on historical games in education. The purpose of this chapter is to explore the connection between these two projects, and their relationship to the existing scholarship more directly. It begins by outlining each project separately, expanding upon the earlier discussion in the methods chapter regarding their differences in approach, and then moves to examine what they share in common, including an interest in historical games and history learning. Finally, it situates these studies within the scholarship on game studies, game-based learning, game design and production, and historical games, and explores how they contribute to ongoing conversations regarding the use and efficacy of games in history education.

Background

Before I began to recruit participants for *Past Stories and Future Worlds: Popular Imagination in Fallout 4*, I did not envision a second participant study that would follow it as part of my doctoral research. As the literature review outlined, scholarship on game-based learning (GBL) has largely been dominated by conversations and empirical studies that analyze

playing games – whether commercial or educational – rather than designing or producing them. Immersed in this literature, my plan was to conduct a similar kind of study but with a specific bend towards history, history learning, and historical games. My background is history, I have a deep concern with history education, and especially with an honest accounting of the discipline of history by its practitioners. I believe the predominant method of historical information transfer, the lecture and the textbook, do not lend themselves well to this kind of history in any way, and indeed often actively contribute to its obfuscation. Orienting my project based on the work of Kevin Kee (2011), Scott Metzger and Richard Paxton (2016) and Adam Chapman (2016)[9], I was confident that a critical historical game, like *Fallout 4*, could illuminate for its players the contingency and accident that are at the centre of the past, and further that authorship, subject position, and ideology are at the core of its formulation into historical analysis and interpretation. With this in mind, I designed this research study in a similar way to others that I had participated in as a research assistant (such as a spatial reasoning and mental rotation study involving *Call of Duty*, and another project involving using *Minecraft* in elementary school classrooms), and in consultation with my supervisor. This was not a pre and post test study[10] (though these can be and often are very valuable), as there was no formal assessment or grading of any kind. It was exploratory research, grounded in an analysis of participant responses and looking specifically for language and answers that revealed an

[9] Kevin Kee (2011) outlines several categories for historical games, including *critical games*, which are defined as such because they challenge linear and narrative readings of the past and highlight contingency. In a similar vein, Metzger and Paxton (2016) provide a more extensive taxonomy for historical games, and include *post-modern* games which raise similar challenges to disciplinary history as Kee's critical historical games. Finally, Adam Chapman offer an entire chapter of his text on digital historical games to exploring the possibilities and potential for post-modern, counterfactual and alternative historical worlds to interrogate and critique disciplinary history.

[10] For a description of this kind of research, see Connolly et al., 2012 and Linderoth et al., 2012. Examples of it can be found in Beavis et al., 2017, and Jenson et al., 2012; 2016.

understanding of history that was, to varying degrees, critical or uncritical. Several of the questions on the various tasks were specifically tailored to elicit responses that would or at least could include more abstract considerations about history as a subject.

What initially turned my attention towards considering game design and production was one of the core gameplay features of *Fallout 4*, and something that made it an ideal candidate as a critical game to use for this project: it is an open-world sandbox game (like for example, *Minecraft*). While the story of *Fallout* is counterfactual, and openly denies linearity, so to does the actual gameplay. Players have immense freedom to choose what they do and how, ranging from major plot and storylines, to world building, to exploration, to casual play. There is no single fixed narrative to follow, as the story is actively generated based upon player choices over time. In a very real way then, the player comes to inhabit this space *as a kind of designer,* who is responsible for their own story. Of course, it is not an endless sea of possibilities, and there are only so many different ways to play the story of *Fallout 4*, but the principle of the open world sandbox is certainly present. Outside of its historical themes, setting, motifs, and its obsession with nostalgia, I believed that the sandbox character of the game could encourage players to explore and engage with the history contained in it in a more meaningful and critical way than if it were simply presented as linear narrative (think *Medal of Honor*, or *Call of Duty*). *Fallout 4* is still firmly instructional in its orientation as a historical game, because it remains a designed world, however open-ended. Its usefulness for learning history therefore depends largely on the way in which it is used, what kind of scaffolding exists, what the goals of interaction are and so on. But its open-world did reveal for me the possibilities of thinking about design in the same way that I was thinking about a kind of critical play. Not that one

could do what the other did not – at least several study participants demonstrated partially or clearly critical understanding of history in their responses *after gameplay* – but that a direct engagement with design and production could raise cognate historical questions, and similarly afford opportunities for learning. *Re-thinking History Teaching: Historical Making and Learning in Digital Culture* was conceived as a way to explore these questions, not separately from the research on *Fallout 4* but from a novel perspective, of design and production, rather than play.

Making and Playing Historical Games – Differences in Approach

At a most basic level, these two projects are distinguished by the fact that one is predominately concerned with playing a game, and the other with making one. Participants in the *Fallout 4* study were given a copy of the game and asked to play it over a period of a number of weeks for several hours, while students in the course on digital history who agreed to participate in that study were tasked with making their own original historical game. It is important to recognize then, that at the level of study design, these two projects are different in their approach, although, as Kafai and Burke (2016), and Klopfer et al. (2018) remind us, making and play often work in concert with one another regardless of which is emphasized or deemphasized in a given moment of activity.[11] Playing *Fallout 4* raises questions of design just as making an historical game raises attendant questions of play, fun, immersion, and engagement. Nevertheless, participants in the *Fallout 4* study were not explicitly designing

[11] From Kafai and Burke: "Connected gaming, as we will contend, sees learning to play and make games as part of a larger gaming ecology in which the traditional roles of game player and game designer are no longer treated as distinct entities but rather as overlapping, mutually informing processes for learning" (2016, 5). Likewise, in *Resonant Games: design principles for learning games that connect hearts, minds, and the everyday*, Klopfer et al. stress that "resonant games are designed so that they bring many players into conversation with each other and with the game" (2018, 4).

historical games, and outside of one lecture committed to presentations and game demonstrations in class, participants in the Carleton study were not playing historical games.

The first project followed an instructionist (Kafai 2006) bent that is present in GBL scholarship, where participants learned about history by playing a game while receiving information and scaffolding from an instructor. In addition to providing them with a space during the initial interview to ask me questions about the game, its history (and history more generally) and my research, I gave participants some basic information and a visual primer to help guide their interactions with *Fallout 4*. This method of GBL is relatively straightforward, with the caveat that exactly how much scaffolding to provide is always a complex and open question. Too much, and the research risks receiving information it is essentially predicting in advance for the participants; too little, and it risks data that is confused or unclear. Early in the project, I provided little contextual information, but as it became evident that participant knowledge of the mid-century period and the Cold War was, generally, not sound, it was necessary to provide additional information to help them understand how *Fallout 4* uses history, while remaining conscientious of not inserting my interpretation of the game world into these materials. To varying degrees, I was directly involved in providing them with instruction regarding the game, how to play, and what to look for. In the spirit of the open world sandbox, I wanted them to have the freedom to pursue the game idiosyncratically, so I included only one mandatory stop, the *Museum of Freedom*, which is one of the first locations players encounter. I did this because it includes rich historical content, text, and detail, that I believe helpfully brings together much of how *Fallout 4* mobilizes history for its story and world building. This kind of participant study is a balance between providing enough context without

directing participants towards responses in advance, and I responded in real time to the needs of participants as these emerged over the course of the research, while always trying to maintain a critical distance that allowed them to view and reflect upon the history in *Fallout 4* independently.

The second project embraced constructionism (Kafai, 2006), although with a more critical focus on pedagogy, where participants learned about history by designing and producing their own historical objects, in this case a historical game. Unlike the previous project, I provided context about digital history and popular media presentations of the past as part of the course, but I *did not* include specific tutorials on software or design, and largely let them work on their own. In this way, I included an accounting for pedagogy that is often absent in constructionist literature (Thumlert, de Castell, and Jenson, 2015; 2018) by intentionally retreating as an expert from view, and allowing students to learn design for this assignment independently. I wanted students to feel like they were historians, without the security of the routine essay, in order to encourage them to think deeply about the design choices they made for their games. Lectures in the course provided examples of media history from various genres, ranging from television and film to online streaming content and YouTube. In every case, I stressed the core questions that were at the foundation for the course: what digital history is, how it engages with traditional history, how it is different, the questions it raises about the past, about access, authorship, and engagement, how it interprets the past and presents arguments, and how it is refiguring history for the broader public that is not actively immersed in academic historical scholarship (unlike these students). There was a four-week unit on digital historical games, though it did not focus on design, but rather on exploring

various kinds of history games to provide examples for them as they figured out their own. In the other, minor assignments for the course, students were actively encouraged to tailor their work so that it would benefit them for their final projects (making a game), whether this meant choosing helpful sources to analyze or review, or choosing related material to write on that could then form a part of their games. The goal of the course and its associated materials was to introduce questions about history and digital history that students would then consider as they designed and produced their historical games. I wanted students to see themselves as historians actively doing history, and responsible therefore for considering the experiences of anyone who may at some point engage with their designed historical world(s).

In sum, it is possible to categorize these projects within different kinds of existing scholarship on historical games and GBL. The first seeks to contribute to a literature that views the potential for games largely as instructional tools for disseminating educational subject matter (Beavis et al., 2017; Brown, 2008; Gee, 2003; Gee and Hayes, 2011; Kafai, 2006; Prensky, 2001; Squire, 2004; 2011; Steinkeuhler, Squire and Barab, 2012). In this context, games offer new ways of interacting and engaging with learning materials that are more immersive and interesting for learners than traditional instructional tools (textbooks). This can range from the sheer novelty of games as interactive objects to a fully formed ludic epistemology (de Castell, 2011) which argues for a complete refiguring of learning that accounts for games and play as foundational pillars of learning. In historical games scholarship, most participant research follows this instructionist design, where the teacher is at the centre of the game-based learning project, and is active in intervening and providing scaffolding for participants (Karsenti, 2019; McCall, 2014; 2016; Squire, 2004; Wainwright, 2014). Some research eschews this teacher-

centred approach (Gilbert, 2019), but still maintains a primarily instructionist focus, where the goal of the gameplay (not design) is to elicit particular ways of thinking about and responding to a games' historical content. The second project seeks to participate in conversations about the potential for game design and production in learning (specifically history learning). This literature (Kafai, 1995; 2006; 2016; Kafai and Peppler, 2012; Papert, 1980; Harel and Papert, 1991; Thumlert, de Castell, and Jenson, 2015; 2018) advocates for games as "objects-to-think-with," and "objects-to-learn-with" (Kafai, 1995), and explores the possibilities for utilizing design as an opportunity for students to engage in embodied learning and context-building. In production pedagogies, this is directly connected to shaping and building objects that reflect real-world contexts, experiences, and present sociocultural concerns and interests (Thumlert, de Castell, and Jenson, 2018, 708). In both cases, learning is viewed as the product of engaging in design processes, where the learner becomes responsible for their own creation, which presents the possibility of establishing a more meaningful connection to their learning as they choose what to produce and how. In historical games research, this would align with research that distances the instructor and re-centers learning around student activity (Gilbert does this in her research on *Assassin's Creed*, though in the context of gameplay and not design). While there is little specific participant research that involves *making historical games*, there is scholarship that touches upon meta-communities (online forums, fansites) and modding (using tools like map editors) that does peripherally explore making in historical games (see for example Squre's work on Apolyton university from 2008 and 2011, or Graham's work with *Civ*

from 2014). In addition, research involving other subjects does offer more direct examples of this kind of project in practice.[12]

Making and Playing Historical Games – Similarities in Research Goals

Each project shares a singular interest in exploring the possibilities for historical games in history learning, and this guides how each study was conceived and executed. In both cases, my interest is not primarily in conveying historical content (places, events, people, dates and so on) but in historical thinking and critical skills development. The goal of playing *Fallout 4*, and of making a historical game, is not the direct acquisition of new facts and information about the past, but an engagement with the myriad features of historical work and narrative. It may initially seem fair to distinguish between playing and making as a means of engaging indirectly (play) and directly (making) with the constituent parts of historical production, but it is important to remember that as an alternative history game, *Fallout 4* is premised on troubling the linearity of historical narrative and forcing its players to reckon with the consequences of too myopic a worldview. Any interaction with *Fallout 4* necessarily obscures conventional readings of the past; the player is left with a tangle that they must work to make sense of. It is in this activity, of trying to make sense of the disparate parts of history present within the game world, that players are given an opportunity to ask questions about the story being presented to them, and to extrapolate these towards more general (but equally critical) questions about history as a subject. The students charged with making their own historical games are faced with the same kinds of questions: Who is writing this history? What kind of history is it? What

[12] See for example *Memory Game* (Vos, Meijden, and Denessen, 2011), *Computer Clubhouse* (Kafai and Peppler, 2012) and *Epidemic* (Jenson et al., 2016).

arguments does it make? What interpretations does it offer? How does it assemble evidence? What voices are included and excluded? In both cases, participants must confront these questions as they pursue the work, whether of understanding the world of *Fallout 4* or the historical worlds they wish build themselves. The activity is certainly different, but the questions that guide it and confront learners are not. This would not be true of any historical game, but it is true of a *critical* game, that takes as its foundation a disruption of conventional historical understanding.

This is why the research goals remain aligned between the two projects. Each presented an opportunity for participants, though in admittedly different ways, to *think about what history is* and *how history is produced*. Understanding that history is an assemblage of information and materials that are pulled out of the remaining traces of the past and put together in some way so that they may be acknowledged and comprehended by others is vitally important as a place to start learning what history is. The research presented here however, seeks to move beyond this point and consider more directly the ways that historical interpretation and knowledge are constructed, and *why this matters*. History is always written by someone, and it is always written for someone. The stories it tells, the way it tells them, the information it includes, the people, voices, agents, and everything else that makes up the content of history (not the past) is inextricably infused with ideology and created by an author or authors firmly rooted in a period that is *not like* the one they wish to explore, describe, and interpret.

In *Fallout 4*, participants were confronted with a narrative and aesthetic game world that looks remarkably historical and harkens back to a period before the present, even if

participants could not exactly place it. But this game did not tell the story of the mid-century or the Cold War that has long become the dominant strain of neoliberal history. The weaknesses generated by unfettered capitalism and consumer culture left America vulnerable and produced constant tension from within. Even more explicitly, being quickly shuttled to a post-apocalyptic wasteland disabused any notion that the story being presented would follow a simple linear trajectory outlining the triumph of American might and economic power over Communism. In the wasteland, players are provided with an opportunity to ask how they ended up here, what forces conspired to lead to an active nuclear event, in what ways this world is similar and dissimilar from their own, and, finally, what all this might say about history (inside and outside of the game world). The history that is present in the aesthetic of the game, the history that orients its NPC (non-player character) factions, the history that informs every event which led to nuclear war, and every mythology for those seeking out a path forward from the wreckage. The game takes one common reading of the Cold War period, especially present in media and pop-history, and upends it. It invites players to think about history, not simply as an assemblage of traces of the past, *but as argument and satire*.

The participants who were tasked with making their own historical games are confronted with the same questions as those playing *Fallout 4*, though not because of playing in an established historical world, but as part of the process that informed their design and production. Students had to determine, in their groups, what history they were interested in presenting and how they would go about doing it. All of the attendant questions that a critical historical game raises, game design *also* raises for its designers: Who is this for? Who is it by? What story is being told? How is it assembled? What voices are central? Which are excluded?

What argument is it making? What interpretation is it offering? Recall for example what Alex said on his critical reflection document regarding how making a game forced him to think differently about crafting history for others.[13] Game design afforded this opportunity because, just as *Fallout 4* disrupts linear history, design disrupts routine scholarly practice and centers questions about efficacy and responsibility. It is the responsibility of the designer to consider history as they imagine and produce it (this is true of the historian in general), and this is easier to recognize when the process is made explicit, and not abstracted into another essay. These participants were forced to reckon with the choices they made about history in their games, and to consider the needs and interests of any potential consumer of their work. This invited them to think more carefully about history and its assemblage and to view more lucidly *their direct role in this process as authors and historians*. While different in their approach, both projects were seeking a similar kind of engagement with history. One that probes historical materials and work and asks questions about it, questions that elevate understandings of history beyond a description of the past.

Where do These Projects fit in the Literature on Historical Games?

I have, in small ways, attempted to situate how I believe each project fits within and contributes to multiple conversations in research about games, learning, and history. Above, I outlined how the study that involved playing *Fallout 4* followed an instructionist design principle where I was active in providing context and scaffolding for participants, while the

[13] From his reflection document: "making a history game is different because… I have to actively think about how I want my actions and choices regarding the history I am telling to influence the player who is engaging with it directly" (Alex, 3).

study that saw students making their own games took a constructionist design approach, where I avoided direct intervention into participants' projects and focused instead on providing more general context about digital history and historical games. An important question remains, however, and that how this research fits within the existing scholarship specifically involves using (or making) historical games in educational settings. It is fair, I think, to acknowledge that this conversation begins in large part because of the work of Uricchio (2005), and especially Squire (2004). Not wishing to rehash what has already been outlined in the literature review, briefly, Uricchio is often credited with popularizing historical games research as an area of study while Squire's doctoral research represents an early example of using a history game in a classroom setting.

Both authors helpfully provide a basic roadmap for considering historical games as learning objects, namely that they are (in a way textbooks often obfuscate) explicitly ideological constructs, and are therefore useful for thinking about things like historical argument and interpretation. Certainly my research carries forward Squire's contention that we should embrace these "ideological worlds" and the opportunities they provide for students to see the machinations of history rather than just its narrative (Squire, 2011, 28-29). In addition to not hiding their ideological status, historical games are also not granted the privilege and deference that textbooks and historical monographs often are, as the products of academic scholars rather than amateur historian-developers. It is therefore, unsurprisingly, an easier exercise of confidence to actively question a historical game than a historical monograph or textbook, because the presumed distance in expertise between author (game developer) and player is less than that between author (academic historian) and reader. This is a small point, but it

matters because this kind analytical questioning is exactly what an educator wants the learner to do with *all of the history they encounter*. Acquiring the tools and confidence to do so in one context allows them to be applied in another. Squire makes this point in *Video Games and Learning: teaching and participatory culture in the digital age*: "good educational games are ideological worlds that instantiate particular ways of viewing and valuing the world. Good games don't shroud these biases, but engage the player in a critical conversation about the world" (Squire, 2011, 36). Engaging users in "a critical conversation with the world" is exactly the goal of this kind of activity, and it is what takes history from the narrowest scope of disciplinary practice and makes it useful both as a body of information and as a set of intellectual tools for approaching this information critically and productively.

It is however, crucial to broaden this discussion beyond early practitioners as well. For a significant period of time, Squire's work stood more or less alone, but that has changed more recently with scholars like Brown (2008), Watson, Mong and Harris (2011) Kennedy-Clark and Thompson (2011), Fisher (2011), McCall (2012; 2014; 2016), Kee (2009; 2014), Graham (2014), Wainwright (2014), Houghton (2016), Glbert (2019), Karsenti (2019), Hiriart (2019) and Boom et al. (2020). The scholarship now includes games and genres outside of real-time strategy (like *Civilization*, one of the original darlings of historical game studies), and considerably more breadth of historical interests and content. In *Videogames and Education*, Brown examines *The Oregon Trail* as an example of a history game often used and school and argues that it can be useful in offering lessons about how decisions and contingency shape history (2008, 118). Watson, Mong and Harris performed a participant study on the use of a World War Two educational game in a high school history class, while Fisher also conducted research on

learning about WWII via games in a small- scale study with four self-identified gamers. Kennedy-Clark and Thompson explored learning about historical epidemics in a virtual world with university students. McCall reports on his own extensive experience with using historical games in the classroom, and provides concepts as well as advice for other educators, while Houghton presents self-reported findings from students regarding what they think they have learned about history by playing digital games. Graham reports on his attempt to use *Civilization* in an undergraduate history course, while Wainwright discusses how he designed a course centered around digital games that explores key concepts in historical methodology and theory. Gilbert and Karsenti both employ *Assassin's Creed*, though in markedly different ways, in a K-12 setting and offer insight into what players might be learning about history from this series. Hiriart, as part of his doctoral research, designed two historical games and tested them with students and other scholars, and argues for the efficacy of games in history education as valuable resources for learning. Finally, Boom et al. remark on growth of this area of study generally, and offer direction for continuing and future research on historical games, including the possibilities for having *students design and produce their own games*.

So, how does the research presented here fit within this growing literature? It agrees with Brown, that one of the core values of historical games is how interaction as a practice can emphasize the importance of choice, and as a consequence, of contingency in history. It can be difficult from text or even film/documentary to visualize how the past could have unfolded differently, because these historical narratives are often dominated by linear progression and epic events and figures. Critical historical games do this as design principle, because they allow their players to opportunity to make meaningful choices of progression. This sentiment is

shared by many others who research historical games, that these games offer opportunities to view history not as concretized but as *uncertain and unsettled.*[14] For participants that played *Fallout 4*, and those that made their own historical games, ambiguity was central in their encounters with history. The story of *Fallout 4* was to be interpreted by the player and informed by their choices; the direction of the game that students designed and produced was the responsibility of the group and its members. I further accept the position of Watson, Mong, and Harris, as well as McCall and Karsenti, that the instructor can be a central and important figure in the productive use of historical games in the classroom. Watson, Mong and Harris report on how the use of the game led to a more engaged and student-centered atmosphere in classroom, but simultaneously stress that the instructor had used the game for several years, and had over that time developed a particular curriculum for its implementation in the unit (2011, 466, 473). Likewise, McCall argues for the teacher as "critical" (2016, 534) and Karsenti remarks regarding *Assassin's Creed* that it is specifically up to instructors to "tap into its full potential" (2019, 1).

A differently designed study could have simply provided participants with *Fallout 4* and have them play it and reflect upon their experiences, without any context introduced, but this is not the direction my study pursued. The history in *Fallout 4* is nuanced and complex, combining historical and retro-future aesthetics together in a counterfactual narrative, and I believed, as

[14] For Uricchio, for example, this is at the core of what historical games offer for history learning: "Predicated as they are on a reflexive awareness of the construction of history, they seem relevant to the notion of history as time-bound meaning situated in an ever-changing present" (2005, 333). In her work, Gilbert points to this emphasis on uncertainty and ambiguity as well: "students often contrasted the moral ambiguity [of in-game characters] with the heroizing narratives they frequently encountered in their social studies classes. Todd found that *Assassin's Creed* was 'more honest' than his history class because it encouraged him to perceive a greater complexity in history" (2019, 128).

these authors do, that it was important to situate for participants what the game does and how, so that they would have a basic understanding of how the game mobilizes history while they played. Not all research agrees on this point, as Gilbert contends that a primary motivator for her work on *Assassin's Creed* is the need for more work that "focuses on students' unmediated interactions with a game" (2019, 112). I would argue however that my study actually attempted to straddle both positions, by providing scaffolding (instruction) but limiting this to general context, while allowing gameplay to be largely freeform, and also providing the travelogue as a document for participants to complete in their own way. In addition, I pursued data analysis in a way that is similar to what Gilbert outlines: "I asked students to recount historical events from various game characters' perspectives, reflect on the meaning they found in their gameplay experiences, and evaluate the differences they perceived their gameplay and school-based experienced" (2019, 117). Of course, I was looking for different kinds of information regarding the relationship between gameplay and a critical view of history, but my approach was similarly *student-centered* and not assessment focused. In both projects, I wanted participants to tell me *what they believed they had learned about history* from their involvement in the study. Both Houghton and Karsenti used a self-reporting approach in their studies, though differently than Gilbert, and certainly than me. Houghton was primarily concerned with general information regarding how university students (in the UK) evaluated the impact playing historical games had on their knowledge about the past across several epochs (2016, 11-14), while Karsenti implemented a self-reporting format that was primarily concerned with content acquisition, and offers little direct insight (though some feedback and advice for future consideration, based on findings in the data) into critical skills development

(2019, 12, 17). So, the *Fallout* study did embrace a central role for the instructor, though it also attempted to provide open-ended opportunities for exploration with the game and its history, and relied primarily on self-reporting from participants across the various study instruments (questionnaires, interviews, travelogue documents). Unlike these other studies, with the exception of Gilbert, Graham, McCall, and Wainwright, however, it maintained a central focus on a *critical engagement with history* where the goal is not content acquisition but critical skills development in history (including historical thinking).

The second project, *Re-thinking History Teaching: Historical Making and Learning in Digital Culture,* is more difficult to place because there has not been much research into making historical games in history education. Certainly, it maintains a focus on a critical engagement with history and historical production, and seeks to contribute to those conversations in historical games studies. In their 2020 report on the status of historical game studies, Boom et al argue that "*Twine* can be valuable for interpreting fragments of the past to recreate or envision diverse possible scenarios," and further that "video games that incorporate the past as part of their narrative, theme, or setting provide a great opportunity space for experiential learning" (34-35, 41). *Twine* is a basic and free-to-use game development software that focuses on text-based games (though images can be and often are incorporated) and it was the primary software of choice for those students that took part in making their own historical games. Taken together, these statements come close to advocating for the possibilities of *making* in history learning with games, and represent some of the most explicit advancing of this position that I was able to find, aside from the research study that I conducted which consisted of making historical games. In the same proceedings as Boom et al., and in historical games

scholarship more broadly, there are many examples of research that in some way advocates for the possibilities of meaning-making with historical games (for example, Chapman 2016; Hiriart 2020; Kee et al., 2009; Rubio-Campillo 2020), but while this scholarship advocates for a design principle (making meaning via digital games) it does not specifically advance the possibilities of game design *as* the activity. I stated above that some scholars have discussed online forums and fan communities, and modding communities as sites where historical making and knowledge production takes place, and this is definitely true. The patrons discussed by Squire's (2008) work on *Apolyton University* (a *Civilization* fansite) and the modders that Graham reached out to (2014) to help him build a *Civ* world for his history course are all participating in historical making to some extent. Many of the questions I wanted to raise about history by having students design and create games are undoubtedly also introduced in online discussions about gamic simulations of history, or the modding of game code to invent specific simulations of historical events. Perhaps my study could be described as more explicit in its approach and intent, but the idea of positioning learners *as producers* in game-based learning, is, as has been demonstrated, hardly new. If anything, I hope that this project has revealed how productive and beneficial it can be to put students in this position, as historians, and have them contend with all the challenges that are always raised in the pursuit of critical historical scholarship.

Conclusion

Both studies seek to contribute to the existing literature and ongoing conversations regarding the potential for digital games in history learning. Much of this advocacy comes from a shared belief, aptly outlined by Hiriart in his work, that "games, whether focused on the accurate recreation of historical events or the simulation of macro level processes, present a

viable, potentially revolutionary way for historical engagement by incorporating the multiple critiques that postmodern thought has brought into the discipline" (2019, 31-32). This really is, I think, the heart of the appeal of historical games, whether from the perspective of play or design. They lack the shield that history as a discipline provides for text, the form of knowledge it most prizes and elevates. This vulnerability makes it easier for learners to interact with them productively and *critically*. More practically, at a basic level, and as many (though not all) of the scholars point out in their work, *games are more fun* (and interactive) than what is often their alternative in the history classroom: the lecture, the monograph, the academic article, the film or documentary.[15] Games engage their users more directly and insistently than any one of these other formats can, because they necessitate engagement as a core principle of gameplay. They "instantiate ideological worlds," that invite users to explore, to ask questions, to challenge and to interrogate, not in a tertiary way, but *directly, as fun and play*. Critical historical games issue direct challenges to dominant historical narratives, and provide the possibility for intervention and learning as a consequence of being immersed in these complex and nuanced virtual worlds. Game design and production does this actively as a consequence of thrusting responsibility on the learner for the outcome of their designed object. They must decide what history is, how it is to be presented, what places, events, peoples, ideas, arguments and so on.

[15] The boredom often assigned to conventional classroom history is mentioned by almost every author included here. Fisher, for example, begins her article by noting that "history is positioned to benefit the most from integrating games into the classroom because while school-based history is considered to be the most boring subject amongst today's young people, history-themed video games continue to be best-sellers" (2011, 71). A notable exception, McCall is explicit in his approach to historical games that "teachers who choose to use simulation games primarily because they are fun and expect to find all their students enthralled are both setting themselves up for disappointment and missing the point. Simulation games have compelling features as educational tools; whether they are fun is not at issue" (2014, 232).

These projects came about as a response to an absence I identified in the literature on historical games, regarding their potential as sites for critical play and the development of critical historical skills. Since I began my PhD, more of this kind of research has emerged, but it remains an outlier to the dominant strain of historical game studies, which is preoccupied largely with textual analysis and content acquisition, rather than how these games can contribute positively to developing and advancing critical skills in history. While I very much view my work as in conversation with this scholarship as well, it **additionally** offers insight into how playing and making historical games can raise critical questions for students about what history is, how it is produced, represented, enacted and interpreted. That is, how students can and do learn history, and most importantly *learn about history* as a discipline, by playing and making games. These activities can direct them towards thinking about who makes history, and why; they provide an opportunity to consider historical narrative and argument in an active and learner-centered way, as they respond to the challenges that games or design problems issue them in real time. Why does *Fallout 4* represent the mid-century in this way? How is it different from other examples I have encountered in history class, textbooks, film, or television? How might I compare it to them? If I know that the universe in *Fallout 4* is a fiction, and yet it uses the same materials of history as do these other formats, *what might this tell me about how history is made*? What topic should I choose for my game? What era of history is it set in, and how do I, or how *will others* identify it? What events should it present? What will be left out? What do I want to say about history? About this specific history?

Playing and making historical games opens a possibility space for learners, in way that text and visual media do not and can not, to participate directly in the assemblage of history,

and to ask questions about this process as they participate in it. These two projects seek to contribute to research on game-based learning and historical games by providing data and insight into how individuals interact with these spaces, from the perspective of play and design, and what they can learn by doing so. Research that explores playing and making games with the **specific** goal of developing and advancing critical historical skills remains underrepresented in the existing scholarship on historical games. The two studies I conducted provide data and insight into this topic. They help to bridge some of the gap that exists in historical games scholarship that separates analyses of what historical games are and how they present history, and how they might be used productively in history education. I also include data and analysis from a participant study that involved having students make their own historical games, research that has been mostly absent in historical games scholarship, and which can hopefully provide novel insights into the potential for this kind of project in history education. Ultimately, I have provided positive data from two participant research studies, both of which demonstrate, to varying degrees, that playing and making historical games can be beneficial for students seeking to develop and sharpen their critical historical skills. This research mobilizes much of the textual analyses that has been done on historical games into *active practice*, and contributes to existing scholarship that also seeks to explore using history games in education.

Chapter Seven: Conclusion

Introduction

When each of these projects began, I was not certain what they would reveal about the possibilities for playing and making historical games in history learning. Initially, I was only familiar with the work of Kurt Squire, as a direct example of participant research using history games, and his focus and student cohort were both distinct from my own. I had already targeted university students as the group I wanted to focus on, because I viewed this period as one of transition, where learners take the fundamentals they have supposedly acquired in elementary and secondary education, and begin to apply them to more robust and challenging forms of critical analysis. In my personal experience, and certainly as the responses from participants in the *Fallout 4* study revealed, this is particularly true of history. Overwhelmingly, what these respondents indicated to me is that, for them, history in high school, which is when many of them had last encountered it, remained remembered as largely a memory game with a nationalist bend. In addition, while GBL is an expansive area of study, and certainly includes work with students in college and university, the bulk of its research tends to focus on younger learners. The same is true with Squire's work, and with most of the participant research on historical games that I encountered later; that is, most of it involves younger students, with a few exceptions (for example Graham 2014; Wainwright 2014). I viewed this as a kind of gap that I could, hopefully, contribute in some way to bridging, by providing data from participant research that involved university and college students.

The goal of the two research studies described here was to explore how playing a counterfactual game, and making a historical game, could invite opportunities for participants

to engage critically with history and historical processes. In them, participants were directed towards the juncture at which core skills in history (understanding what a primary and secondary source is, how to verify an objects' historical veracity, understanding what kinds of information different kinds of sources offer etc.) come up against a demand for analytical/interpretive work from the student, that intersection where doing history develops into doing history *critically*. The movement from the activity of history understood as the proof of knowledge retention and the accurate positioning of context (both of which *do matter*), and towards history as analysis, interpretation, and argument. This work requires that the student distances themselves from the immediate materials of the past assembled for them and begins to ask questions about them. Let me be clear, critical work in history *is not possible* unless the student can confidently address the narratives and objects of history (and the past) *as constructions* of historical evidence, interpretation, argument, ideology, and authorship. This does not reduce historical scholarship to fiction, it makes it honest and accountable to others.

Limitations

The research that is presented here should be understood as limited in several ways, which in turn adds emphasis to the need for more participant studies that involve playing, and *especially* making historical games. First, the sample size of those participants that fully completed one of the two studies is thirty-two (twenty completed *Re-thinking History Teaching: Historical Making and Learning in Digital Culture*, and twelve completed *Past Stories and Future Worlds: Popular Imagination in Fallout 4*), while partial data exists for forty-two participants. Certainly, thirty-two is enough to elucidate useful data and insight into making and playing historical games, as has been demonstrated here, but it remains a limited sample. Second,

while both studies actively encouraged as diverse and representative a sample as possible (and both include self-identified male and female students, helping to combat the tendency for work with games to skew definitively male), it was not within the purview of either project to proceed as fully intersectional research. In the case of *Re-thinking History Teaching: Historical Making and Learning in Digital Culture*, this was simply not possible, as I did not have control over who enrolls in the course that hosted the study, and could only actively encourage those registered in the course to participate. The promotional materials that were posted for *Past Stories and Future Worlds: Popular Imagination in Fallout 4* around York and Seneca @ York campus certainly encouraged students to inquire about participation, but again, I did not control who ultimately agreed to join the research. Having said this, as someone deeply concerned with an honest engagement with history, I fully recognize its staggeringly poor track record as a discipline when it comes to inclusion in all senses (suffice to say, scholarly history has, and in many ways actively continues to silence and erase voices that contest its dominant narratives). It is undoubtedly true that understanding the full potential for historical games in history learning will require research that centers accountability and intersectionality in its approach. The discipline of professional history has done much to damage the trust between it and various communities, and an honest accounting of the past *is not possible* until every voice is included in it, equally.

How do Historical Games Activate/Represent History and Reveal Insights About the Processes that Underlie Historical Making and Knowledge Building?

Historical games of the kind that were chosen for this research mobilize history to instantiate ideological worlds and tell stories to their players. *Fallout 4* is rich in narrative and

aesthetic, both of which are heavily infused with a perspective on the mid-century and retro-futurism. Laced with satire and bombastic tones, a little prying reveals a virtual setting of deep anxiety and unease. The very first event the player encounters in the game (outside of a crying child, which is likely serving to highlight this same discomfort) is a visit from a fallout-shelter salesman, ranting frantically that the world is ending soon and the player needs to confirm their spot in a vault for safety. It is not an easy task to weave together the sensationalism of the mid-century and its deeply held anxieties and uncertainties about the future, but *Fallout 4* does this remarkably well, by leaning into humor and pastiche. The retro-futurism that is present in the game is intended to resemble the thinking of the people in this period; that is, what *they thought* the future might look like. This is evident in the stainless-steel gloss that seems to cover every appliance, the robot-servants made of vacuum tubes, and heavy influence of atomic energy and technology. If the player happens to know about this period before they play, they can quickly locate its setting by pointing out the rabbit-eared television or the old-style radio, not to mention the clothing people are wearing, or even the locale itself, an idyllic mid-century suburb complete with a white picket fence. The counterfactual turn, of course, is the nuclear exchange, and the complete destruction of this seemingly peaceful setting. Critical historical games, like *Fallout 4*, activate history to build recognizable worlds that players can identify and place themselves in as agents and explorers. They also disrupt popular understandings about historical places and periods, and trouble pre-conceived interpretations of them that we often carry with us. In so doing, they offer opportunities for players not just to explore these virtual spaces, but to ask questions about their content, story, style, affordances, and structure.

If critical historical games do this largely as a consequence of their design, producing historical games does this directly through the intervention of the historian-developer. Making a game immediately raises the questions associated with authorship that are critical to understanding what history is and how it is produced. As the previous chapter outlined, placing the student in the role of producer necessitates that they consider history in a novel way; not as the essay writer, not as the exam taker, but as the *historian*. It becomes their responsibility to determine how history will be enacted in their game, what story will be told, which actors will be present, what tasks the player will perform, and how these will advance the game forward. My research contains only two examples, but in truth most historical games do this to some or another extent. Most employ systems of logic and affordance, in addition to narrative, to render historical worlds where players explore and act on the substance of the past in some or another way. Most necessitate intervention and engagement as a core ludic principle, and thus transfer the learner from a space where their role is often considered as passive (the absorption of knowledge) to a virtual space where their role is *active*. Finally, though to varying degrees, most offer an opportunity to engage with and think about history in a way that is not possible with text or visual media. Imagine the best possible example of embodied learning, and historical games have the potential to match it.

What Knowledge/Skills, if any, do Learners Acquire by Playing and Making Historical Games?

At the risk of belaboring this point, I will be brief. I am confident that my research has demonstrated that making and playing historical games provides an opportunity for students to engage with history in a way that is not often available to them. That is, actively, not passively, and as potential future historians, not simply as students. In both studies, there were examples

of participants who demonstrated critical skills and linked these directly to the activity of playing or making an historical game. It cannot be determined whether the game itself is responsible for the initial development of these skills, but it is clear that engaging in play and making opened up a space for them to ask questions about history, historical knowledge, and the constituent parts of historical scholarship. And this, considered together, encouraged them to think *critically* about what history is and how it is produced. In the two chapters that are dedicated to these research projects, there are many examples of participants doing exactly this, linking the activity of play, or of making, and a critical consideration of history *together*. Though it was rarer than I had hoped it would be, *Fallout 4* genuinely did provide a space for a few participants to think about history in a different way, to consider why this counterfactual story was being told, and the ways in which it served as a critique to dominant narratives about the mid-century and the Cold War period. Having students make their own historical games seems to have invited this kind of engagement more often and readily, as *most* of those participants reported that in the process of design and production they actively started to consider what they were doing *as historical work*, and started asking questions about what kind of history they wanted to produce. Most importantly, they began to think more seriously about the consequences of the choices they were making, and how these would influence the history they produced.

What Represents Best Practices for Deploying Historical Games in Educational Settings?

When I developed the project on *Fallout 4*, I was optimistic that historical games (especially critical games) had the potential to offer a critical engagement with their players. When I designed the Carleton research study, I was likewise confident that placing students in

the role of historian-developers would invite them to consider history from a novel perspective that is not often available to them, and that this as well could provide an opportunity to engage with history critically. What is included here are two examples for ways of employing historical games in history education, one from the perspective of play, and another from the perspective of making. In the previous chapter, I connected these methods of employing historical games to existing research in GBL, as instructionist and constructionist, respectively. But, I have to this point largely avoided engaging directly with this final major research question. Truthfully, both perspectives included here have their merits and their challenges, some of which I have spoken to. So for example, the instructional use of historical games can be beneficial, even for those units designed specifically around critical skills development. The challenge, in this perspective, is to provide learners with enough instruction and context so that they are able to engage meaningfully with the game in question, and the goals of the unit more generally, without scaffolding so much that a critical engagement with history is rendered a largely rote exercise.

If the purpose of the unit in question is primarily content acquisition, then this is less of an issue. But, if the goal of using a history game in the classroom is for students to engage with and think about history more critically, it is essential to leave opportunities available for them to do so by carefully balancing the information provided so that room is left for student-initiated questions and intervention. It is also important to choose a history game that readily allows for this kind of critical engagement. *Fallout 4* worked in the cases where it did because it directly challenges dominant historical narratives and intervenes in history to provide a counterfactual position. Not every historical game however is equally well suited to this work, and those whose critical content is more obscured or abstracted (think *Civilization*), or those

that actively embrace and promote dominant historical narratives (think *Call of Duty, Medal of Honor*) may not be the best choices. If the educator is designing a unit around a historical game where the goal is to promote engagement with historical theory, methods, and historiography (the critical components of disciplinary history and historical work), they should choose a game that issues challenges to history in some way, and provides a space for the learner to explore and confront history in its messiness and ambiguity.

Designing and producing historical games can follow many trajectories, and I can only speak confidently about the one I decided to follow myself. It was my position that in order to extract the most use out of a project like this one, I needed to discombobulate the students out of their complacency with doing historical work a particular way. To do this, I largely retreated from view over the course of the project, and allowed them to pursue their games in whatever way they wished, so long as I believed it was feasible, and would not create a disproportionate burden of work for them relative to their other courses. I suggested a couple of software options that they could use (*Twine*, and *RPGmaker*), but I did not provide tutorials on how to use them, or directly respond to questions about their operation. I wanted them to confront the questions attendant to doing history as they emerged, and within their groups, rather than by reference to me or my expertise as the instructor. This method worked in this case, and they produced thoughtful and engaging games almost entirely without my direct advice or intervention. More importantly, as their reflection documents revealed, they really did confront questions about history as a subject and discipline, and how it is produced, as they designed and developed their games. Most were able to frame these entanglements in a critical way, and spoke to how game design forced them to reckon with historical production in a way quite

unlike the essays they had gotten so used to writing. For a unit centered around the design and production of a game or other historical object, I would encourage educators to think about the possibility of limiting their direct involvement and consider instead how allowing learners to pursue their own work (obviously within reason, and still attendant to course goals and curricular needs) can encourage them to think of themselves not as students, but as producers and makers. Not every student will answer that charge by being responsible to questions of historical fidelity or efficacy, but it is possible with little direct involvement to steer production along this course, by incorporating content – as my course did – that centralizes the importance of asking questions, of reading and analyzing history honestly, and thus of producing it thoughtfully. This area desperately needs more participant research and I hope my findings are encouraging enough to serve as advocacy for continuing this work.

Final remarks

I would like to conclude by summarizing this work together and offering some additional though limited thoughts in a few key areas. The first is that the inclusion of multimodal media in the classroom, whether in the form of play or production, necessitates a fundamental reimaging of assessment that is at present, almost completely absent in curricular education. It is difficult to properly assess what games and game design can offer learners if the mode of assessment remains the essay and the exam, both of which reward routine and memory. The instruments I used in these projects purposefully excluded routine forms and measures of assessment. Instead, I wanted participants to speak in their own way about the relationship between what I was asking them to do and history, and to reach their own conclusions regarding its utility. The second is that more research on historical games via participant-based

studies are needed, and especially those that involve game design and production. This is of course the common refrain of all qualitative or mixed-methods educational research, that it raises as many questions as it offers insight into, that more data is necessary. But it is particularly true in historical games research, where there is simply a scarcity of participant studies, and a paucity of participation in many of those that do exist. This is especially the case with game design and production, as I struggled to find even a single clear example from published research of another project where students were tasked with making their own historical games without any starting structure like a map editor.

Third, and lastly, I think it is possible, while granting that these two studies work together in a number of crucial ways, to conclude separately about their success. The York project generated useful data about playing historical games, especially critical games like *Fallout 4*, and the questions they can raise for players, but it did not demonstrate a clear and consistent benefit in skills development from gameplay. Certainly some participants reflected critically upon history in their responses, and linked this directly to the game, but most did not. I have argued elsewhere about why I think this might be, but the important takeaway is that the project I designed, while it certainly engaged participants and got them to talk about history, did not often result in them thinking *more critically* about history. In contrast, the project at Carleton yielded much more encouraging results, as it relates to demonstrating critical skills development. Fully 16 of the 20 available critical reflection documents contain responses where participants either clearly or at least partially demonstrated thinking about history critically and linked this to having undertaken the assignment (of making a historical game). I can state confidentially that asking participants to take charge of their own learning by

making their own historical games and having to contend with all of the challenges that arise out of 'making history,' seems at least to have proven beneficial for their thinking about history in a more critical (and therefore productive) way. As such, I think there is something to be said for the prospect of game design and production, over gameplay, when it comes to history education, and crucially the development and building of critical historical skills. Gameplay offers many benefits as well, but putting students in the role of producers actively encouraged them to wrestle with the question of the historian in a way that gameplay did not, and this encounter, judging from their responses, led them to ask questions about historical knowledge and production that they often do not think about. Ultimately, it is my hope that the data generated by these two projects can positively contribute to ongoing conversations within the scholarship on game-based learning and historical games. It may be the case that the greatest potential lies in game production rather than play, but truthfully the data I have gathered suggests that both can prove productive and yield positive educational impacts on history learning.

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Appendix A:

Fallout Study Interview Questions

interview questions:

1) Can you talk a little about your answer to the first question on the history questionnaire.

2) Did you find any of the questions particularly difficult to answer or unclear? If so, please describe what about them you found difficult and/or unclear.

3) Can you describe briefly your familiarity with history as a subject. Feel free to provide any details that you believe are helpful. This can include what you think history is, what function it might serve, whether you find it interesting, or useful.

4) How would you describe your experience with playing video games. What kind of video games do you normally play, if you do play games? Have you ever thought about the genre of historical games?

5) Do you happen to know anything about *Fallout 4* or the *Fallout* series in particular? If so, can you please provide some background information regarding your knowledge.

6) What do you think about using something like a digital game to teach educational content? If you play digital games, are there are skills that you believed have improved through play? If so, can you please briefly describe them.

7) Reflect back on the best paper that you believe you have written. Can you describe what you believe made it your best work.

8) A counter history is a story that offers an alternative and fictional perspective on past events. For example, a counter history might ask: what if Hitler had successfully invaded Britain in 1940-1 during World War II. Have you ever encountered content that you would describe as a counter history before? Are there any details you remember about it? What stood out as interesting about it, if anything?

9) ***watch the advertisement*** Please describe what is going on in this advertisement. What product is being advertised? How is it being advertised? What stands out to you in particular (i.e. aesthetic, style, product placement).

10) Are there any questions that you have? (about *Fallout*, the study, history, game-based learning).

Post-play Questions:

1) What elements of the game world and story stood out the most to as you were playing? Is there any specific place that you took a particular interest in exploring, or a quest/mission where the story involved was engaging for you?

2) Based on your play experience, can you explain what you believe Fallout is about? Put another way, what do you think the primary story of Fallout 4 is?

3) Are there any features of the story, or the virtual world, that you would consider as historical, or historically themed? Can you choose a specific example from play, and describe why it stands out to you? (What I mean by this is, do you think the writing of the story or design of the world are influenced in any meaningful way by history?)

4) What do you think the significance is of generating a game world that attempts to imagine a future where nuclear war has taken place? Are there any lessons that can or should be taken away from interacting with this game space?

5) What, if anything, do you think playing Fallout 4 has taught you about the Cold War period?

6) Do you think the game designers are intending players to come away with any particular conclusions or insights regarding any of the questions/issues that game raises. Put another way, what do you think the game designers wanted players to experience in this game?

7) Do you think Fallout 4 fits within our earlier definition of a counterfactual or alternative history?

8) Are there any lessons that you have taken from gameplay that you can share?

9) What advice would you offer another player who Is seeking to engage with the games historically themed content? Are there any specific places you would tell them to explore; Or, any specific story missions you would advise them to pursue? Can you explain why?

10) Finally, what do you think of the idea of using Fallout 4 or another, similar game, to teach educational content – including history – to students? Do you believe games like this have educational value to players? Can you explain why or why not?

Appendix B:

Fallout Study Demographic Questionnaire

Demographic Questionnaire:

1) Can you please state your major field of study and academic year:

2) Please list up to the three most recent courses that you have taken in history (please include any high school courses where applicable). If you cannot remember the name of the course, please provide the school year (i.e. 1st year university, grade 11) that you took the course in.

3) Please list the places where you most frequently encounter historical content of any kind (i.e. books, film, online media, videogames)

4) Approximately how many hours a week do you play videogames?

5) What top three video games do you play the most?

6) Have you played *Fallout 4* or any other *Fallout* game prior to participating in this study?

Appendix C:

Fallout Study History Questionnaires

History Questionnaire:

****Disclaimer**** The questions listed below are **in no way meant to be viewed as skill-testing questions**. You are not being assessed on the basis of your knowledge about any topic related to history. No level of expertise is expected or required for any materials related to this study.

1) Please consider a history lesson that you remember from school and describe it. Why do you remember it? What, if anything, is significant about it for you?

2) What do you believe the goal or purpose of history is? What value, if any, does it offer?

3) If possible, please describe briefly what you believe are a few of the most significant features/events/developments of the Cold War.

4) What do you know about Canadian involvement in the Cold War?

5) Outside of school, where do you encounter history most often? Feel free to provide a short list if it is helpful in answering the question

6) What resources has proven most useful for you in learning about history (e.g. textbooks, films, online content, television shows) and why?

7) If a friend (or a sibling, child, colleague etc.) were to ask you to help them understand what history is, and what historians do, how would you respond to them?

Additional questions to be answered in the Post-play questionnaire

1) What elements of gameplay did you enjoy the most and the least?

2) Were there any symbols/places/advertisements in the game that stood out for you in particular for any reason? Can you describe what about this/these place(s) stood out for you?

3) Are there any features of the virtual world that you would describe as historical? Can you provide an example or two from play?

4) Do you believe the game presents any arguments to the player regarding history or about history? Do you believe it presents any arguments about politics?

5) Do you believe, after playing, that this game has any value for teaching? Why or why not.

Appendix D:

Fallout Study Travelogue Document

Travelogue Document:

****Disclaimer**** The travelogue is meant to give you an opportunity to provide information about *Fallout 4* and its use of history while you play. It can be completed at any point during gameplay, and using any combination of text and images (or other media form) that suits you. The questions contained here are meant to help guide your thinking, but should not be taken as the sum of all worthwhile inquiries. *You are encouraged to include any information/insights that you believe are not covered in the purview of these questions*.

1) What features of the game world stand out to you? Is there anything significant about them? If so, what? Do you believe that the virtual environment effects the tone of the game/story?

2) Please describe (or screenshot) any interesting features of from the Museum of freedom while you play through it. What stands out in this location, if anything? Do you believe is it possible that museum is attempting to relay any kind of message to the player *about history* that is also related to the story of *Fallout 4*?

3) Do you notice any elements of the virtual environment that you would consider historical or ahistorical (counter-historical)? If so, can you please include an example, and describe it? These can include *anything* that you might consider to be historical. Is there anything significant about them? If so, what?

4) Do any of the in-game advertisements stand out for you as you play? Do they present any message that resonates with you in some way? If you could compare these advertisements to something out of your own experience, what would that be?

5) Is there one place or a few places in the game where (if you were a tourist of this world or even someone who knows the game well) you might take a screen shot that could be made into a postcard for someone else? Can you take a screen shot and describe why, for you, this image is meaningful enough to show someone else?

6) Please include any additional information, images etc. that are of interest to you, or that stood out for you while playing. This can include anything that you find significant about the game, and is not limited only to potentially historical elements of the virtual world. What about them is interesting or significant for you?

Appendix E:

Fallout Study Visual Primer

Fallout 4 visual primer: Pictures from Fallout 4 & the 1950s/60s

A bomb shelter with a swimming pools, 1950s. James Vaughn

A child employing the “duck and cover” at school, under a desk. United States Government

A fallout shelter near Akron, MI, in 1960. United States National Archives

United States National Archives

Display of products, post-war. Fallout 4, Bethesda Softworks

Advertisement for Vault-tec underground shelters, pre-war. Fallout 4, Bethesda Softworks.

1950s suburban home with car. Credit pintrest.com

A 1954 brochure from St. Charles Mfg. Co. Credit Nancy Palmieri, The New York Times

Sanctuary Hills, pre-war. Fallout 4, Bethesda Softworks

Sanctuary Hills kitchen, pre-war. Fallout 4, Bethesda Softworks.

Come over for Coke, 1951. Credit, adbranch.com

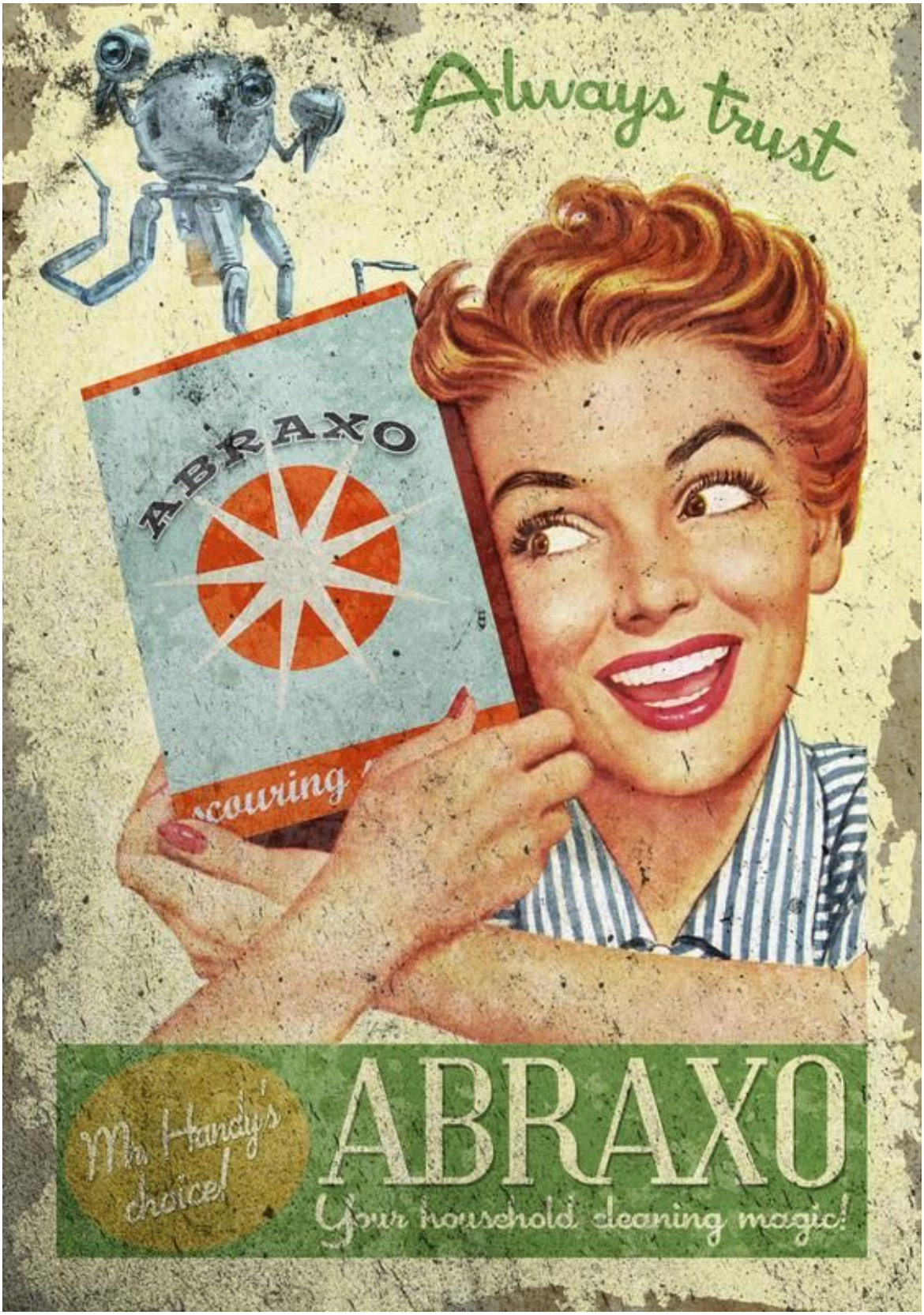
Coca-cola Want something good? 1951. Credit adbranch.com

Nuka-cola advertisement. Fallout 4, Bethesda Softworks

Nuka-cola advertisement. Fallout 4, Bethesda Softworks

Fancy lads snack cakes advertisement. Fallout 4, Bethesda Softworks

Montamower's Blitz Burner trash burner, 1955. Credit atticpaper.com



Abraxo cleaner advertisement. Fallout 4, Bethesda Softworks.

Hotpoint kitchen appliances Oven Stove advertisement, 1959. Credit vintageadbrowser.com

Appendix F:

Carleton Research Study HIST/DIGH 3812 Course Outline

History
CARLETON UNIVERSITY

Carleton University **Department of History**

Course Outline

COURSE:		HIST/DIGH 3812A: Digital History – Histories in Digital Media and Popular Culture
TERM:		Fall 2019
PRECLUSIONS:		None
CLASS:	**Day & Time:**	Monday, 11:35-2:25
	Room:	Please check with Carleton Central for current room location
INSTRUCTOR:		Samuel McCready
CONTACT:	**Office:**	TBA
	Office Hrs:	Monday 9:00-11:00am or by appointment
	Telephone:	TBA
	Email	

Course Description:
This course seeks to explore a selection of examples drawn from popular digital histories and digital historical forms (such as film and television, Netflix, YouTube, digital collections and archives, and video games), to raise questions about how representations and enactments of the past in popular digital culture are reimaging historical practice and redefining historical engagement for a broader public. **This course is particularly interested in investigating how digital history is being produced and consumed by the public, and how this refigures what it means to engage with, and learn about, historical content.** Students will be introduced to various examples from digital history and will be tasked with a **project in historical making to produce their own original historical game**. Assignments will provide students with support that is designed to help them build towards this final project. This means that students will take an active role in the topics they choose to pursue for course assignments, with the intention that they choose material that will be related to their larger, final project. ****You do not need to be a designer or coder to do this work! The intention, rather, is that students get to experience what it is like to be responsible for the creation of an historical object (in this case game), by getting to control the theme(s), narrative, play, design, and message of their historical creation**** Lectures and readings will consist of a combination of background

material as well as scholarship derived from digital media studies and communications that provides students with an introduction to approaching a critical engagement with digital content. The principal aim of this course is to provide material that help students work towards the final project, and encourage them to think about meta-historical concerns (i.e. what is history about? How is it made?), raising questions such as: what constitutes legitimate history in a digital society, and how can we know? How can we approach a critical analysis of the process of history making both in its traditional and digital forms? How is authorship, content creation, and user engagement with digital history defined and policed? What does the profusion of popular historical representations in digital media mean for the future of academic history?
And, finally, what represents best practices for the teaching and learning of history in a digital world?

DISCLAIMER – PLEASE READ:

This course will provide students with an opportunity to participate in a Carleton funded `research study on the teaching and learning of digital history. **Participation requires no additional work on the part of the student, and is **completely voluntary**. Choosing to participate, or not to, will have **no impact** on how you are evaluated in the course. The study will be explained in greater detail on the first lecture of term, and student's will have an opportunity at that time to opt in as participants in the study. **If you have any questions or concerns about this study, and how it relates to the course in general, please do not hesitate to contact me at**

Learning Outcomes:
This course will ask students to critically engage with both traditional historical content as well as its production in digital historical forms. Exploring professionalized history and its translation into largely "popular" digital media will raise questions about historical chronology/linearity, historical determinism, contingency, the subject, agency, authorship, pedagogy, and what constitutes 'legitimate' historical representation. In addition, students will be expected to:

- Engage in deep reading and analysis of traditional historical scholarship, and contemporary digital historical media.
- Reflect critically on questions of historical philosophy, practice, and representation.
- Produce thoughtful work relating to questions of historical representation and its enactment in digital histories.
- **Experience historical making as an active and ongoing process via the creation of an original historical object (game).**

Required Texts: There are no required texts for this course.

- *Note: All listed materials without a link can be found through the university library*, on the course CU Learn page, or have been placed on reserve in the library in the case of book chapters.

Recommended Texts:

- *Playing with the Past: Digital Games and the Simulation of History*. Eds. Matthew Kapell & Andrew Elliot. Bloomsbury Academic Press, 2013.
- *Re-thinking History*. Keith Jenkins, Routledge, 1991.

Course Calendar:

Please Note: All selected readings are subject to revision and change, depending on course direction/needs

Module One – History and Digital History:

Week One, September 9th – Introduction: Considering digital history – questions, topics and concerns.
Readings:

- Jerome De Groot, "Empathy and Enfranchisement: Popular Histories," *Rethinking History* (10:3), 2006, 391-413.
- Douglas Seefeldt and William Thomas, "What is Digital History?" *Intersections: History and New Media*, May 1st 2009 https://www.historians.org/publications-and-directories/perspectives-on-history/may-2009/what-is-digital-history

Week Two, September 16th – How do we consider media and history critically? Introduction to approaches for the reading and analysis of digital/historical content.
Readings:

- Douglas Kellner and Jeff Share, "Critical Media Literacy, Democracy, and the Reconstruction of Education," in Ed. D. Macedo and S.R. Steinberg *Media literacy: A reader*. New York: Peter Lang, 2007, 3-23.
- Darren Bryan and Penny Clark, "Historical Empathy and Canada: *A People's History*," *Canadian Journal of Education* (29:4) 2006, 1039-1064.
- Danielle Kinsey, "Three points about history, especially for non-historians," *Canadian Journal of History* (54: 1-2) 2019, 1-20.
- ****Digital How-to guide due**

Week Three, September 23rd – Approaching Digital Historical Resources: Archives, Collections, Blogs, WayBack
Readings:

- Huub Wijfjes, "Digital Humanities and Media History: A Challenge for Historical Newspaper Research," *TMG Journal for Media History* (20:1), 2017, 4-24. http://tmgonline.nl/index.php/tmg/article/view/277/413
- Joan M. Schwartz and Terry Cook, "Archives, Records, and Power: The Making of Modern Memory," *Archival Science* (2), 2002, 1-19.

Module Two – Playing the Past: Digital Historical Games:

Week Four, September 30th – Introduction to Digital Historical Games
Readings:

- ****Recommended Primer for Digital Historical Games**** Scott Metzger and Richard Paxton, "Gaming History: A Framework for What Video Games Teach About the Past," *Theory & Research in Social Education* (42), 2016, 532-564.
- William Uricchio, "Simulation, History, and Computer Games," in Ed. Joost Raessens and Jeffrey Haskell Goldstein, *Handbook of Computer Game Studies*. Cambridge: MIT press, 2005, 327-338.
- Kevin Kee. "Computerized History Games: Narrative Options," *Simulation and Gaming* 42(4), 2011 423-440.

Week Five, October 7th – Historical Games in the Classroom
Readings:

- Kurt Squire, *Video Games and Learning:* Chapter Six, "Games in the classroom, replaying history," 109-139.
- Kevin Kee and John Bachynski, "Outbreak: Lessons Learned from Developing a History Game," *Loading…* (4:3), 2009 1-14.

Viewing – Sid Myers, *Civilization*

- ****Digital Source Analysis Due on of before this date**

Week Six, October 28th – Blurring fiction and reality: Historical Verisimilitude
Readings:

- *Playing with The Past:* Chapter Fourteen, "Historical Veneers: anachronism, simulation and art history in *Assassin's Creed II*," by Douglas N. Dow, 213-232.
- Adrienne Shaw, "The Tyranny of Realism: Historical accuracy and politics of representation in *Assassin's Creed III*," *Loading…* (9:14), 2015 4-24.
- Brian Rejack, "Towards a Virtual Reenactment of History: Video Games and the Recration of the Past," *Rethinking History* (11:3), 2007, 411-425.

Viewing – Ubisoft publishers, *Assassin's Creed*

Week Seven, November 4th – Post-Modern Skepticism and Alternative Histories: *Fallout* and the Counterfactual Past.
Readings:

- Naill Ferguson eds, *Virtual History*. Introduction: 1-8, 68-90.
- *Playing with The Past:* Chapter Twelve, "Modding the Historians' Code: Historical Verisimilitude and the Counterfactual imagination," by Tom Apperley, 185-198.
- *Playing with The Past:* Chapter Nineteen, "*Fallout* and yesterday's impossible tomorrow," by Joseph A. November, 297-312.

Viewing – Bethesda Softworks, *Fallout 4*, *Fallout 76*

<u>Module Three – Popular Digital History: Image, Film, and Television:</u>

Week Eight, November 11th – Reading visual Images as History and considering film as cultural expression and cultural artefact.

Readings:

- Susan Sontag, *On Photography:* Plato's Cave, 1-24.
- Robert A. Rosenstone, "The Historical Film as Real History," *Film-Historica* (5:1), 1995, 5-23.

Viewing – *Our Modern Times*

Week Nine, November 18th – History for popular consumption: documentary and docu-series.
Readings:

- Murray G. Phillips, "Public History and Sport History: Evaluating Commissioned History and Historical Documentaries," *Journal of Sport History* (35:3), 2008, 393-410.
- Desmond Bell, "Documentary Film and the Poetics of History," *Journal of Media Practice* (12:1), 2011, 3-25.
- Benicia D'Sa, "Social Studies in the Dark: Using Docudramas to Teach History," *The Social Studies* (Jan/Feb 2005), 9-13.

Viewing – *Monarchy*, BBC history, presented by David Starkey

Module Four: Streaming History: Online Content and Binge-history.

Week Ten, November 25th – What is true? Modern media demands and the question of 'legitimate' history.**
Readings:

- Richard Evans, *In Defence of History:* Chapter Three, "Historians and their facts," 75-102.
- Keith Jenkins, *Re-Thinking History*: Chapter One, "What History Is," 5-27.
- Peter Sexias. "Schweigen! Die Kinder! Or Does Postmodern History Have a Place in the Schools." In P. Stearns, P. Seixas, & S. Wineburg (Eds.), *Knowing, Teaching and Learning History: National and International Perspectives* (pp. 19–37). New York, NY: New York University Press, 2000.

Viewing – Netflix, *Conspiracy*

- ****Digital Book Review due on or before this date**

Week Eleven, December 2nd – Myth, folklore, and the rise of pop-history.
Readings:

- Charles Soukup, "*I Love the 80s*: The Pleasures of a Postmodern History," *Southern Communication Journal* (75:1), 2010, 76-93.
- Brian A. Pavlac ed. *Game of Thrones versus History: Written in Blood*. Hoboken: John Wiley and Sons Inc., 2017 – "Introduction: The Winter of our Discontent," and "Setting up Westeros: The Medievalesque World of Game of Thrones," by Gillian Polack. 1-17, 251-261.

Viewing – HBO, *Game of Thrones* (**CONTENT ADVISORY****)

Week Twelve, FRIDAY December 6th – Presentations, and Final Thoughts/Reflections: Where is History going?
Readings (optional, encouraged):

- Alun Munslow, "Deconstructing History," Institute of Historical Research, 1997, 1-4. http://sas-space.sas.ac.uk/4397/1/Deconstructing_History_by_Alun_Munslow___Institute_of_Historical_Research.pdf
- **Group Project/Content Creation Due**

Evaluation:

- **Attendance & Participation (20%)**
- **Digital "How-to" Guide (10%)**
- **Digital Source Analysis (15%)**
- **Digital Book Review (15%)**
- **Group Project: Content Creation (40%)**

Attendance & Participation (20%):
Students are expected to attend all lectures and arrive ready to participate and contribute. Lectures will consist of a mixture of lectures relevant to the sources from digital history under examination, direct engagement with examples, and class discussion. In addition, there will be several small in-class assignments that are intended to contribute to brainstorming and planning for the final project. Information that is critical to approaching digital sources (and assignments) carefully and thoughtfully will be covered in class, and students that are repeatedly absent may experience difficulty engaging with the material covered in the course.

Digital "How-to" Guide (10%) 250-750 words:
The purpose of this assignment is to provide students with an opportunity to think about concerns/questions/uncertainties regarding approaching digital historical content. The "How-to" guide should be written with a non-expert reader in mind, for them to use as a resource Students will choose a digital historical resource (examples include online archives, digital collections, newspapers, streaming content, docuseries, games, movies etc…) and produce a **Digital** (1-3 pages) "how-to" guide that explains how to approach this resource, what questions are important to ask about it, how to use it thoughtfully and carefully, its usefulness for history, and its limitations. It is **strongly recommended** that students choose a resource that is in some way related to the themes/approach of their final project. **this assignment puts the student in the place of an educator, and asks them to consider (and interrogate) what they believe is important to think about when approaching a digital resource.**

Digital Historical Source Analysis (15%) 500-750 words:
Students will choose a source from digital history that applies to their final project and undertake a close reading/textual analysis of the object in question. Much like traditional, textual analysis of primary documents, this assignment asks students to consider what the source says, what argument (if any) it makes, how it marshals evidence, what historical perspective it uses, and its historical significance. Rather than simply assess its historical accuracy, then, this assignment asks students to think about **how historical arguments are produced**. This assignment **does not require** the use of additional sources. Questions to consider include:

- What is the relationship between this source and history? What events/places/periods/people etc… does it describe?
- How is it presented? (movie, show, YouTube series, game etc...), and how does this affect user access/ participation/consumption of it?
- Does it make an argument about history or about a particular historical moment?
- What questions does it ask? Which questions does it ignore?
- What evidence does it marshal to support this argument? Is there evidence that is missing?
- What is its historical significance/utility?
- Is this a useful resource for educators or students?

The difficulty in this assignment rests primarily in asking you to think about historical presentations as "arguments-in-the-making" that reveal themselves actively and over time. I want to encourage you to move away from the simple division between "fact" and "fiction" and instead consider more complex issues related to history-making.

Digital Book Review (15%):
Students will select an academic book that deals in some way with one of the following subjects: Game Studies, Historical Game Studies, Media Studies, History Education or Digital Learning. They will provide a critical review of this work in the form of a short YouTube video, that can be designed and executed in any way that they wish. These reviews will be presented in class, and should not exceed 5 minutes in length. **Rather than provide a summary of the text, this assignment asks students to engage with the primary arguments they believe the author or authors are making**, and weigh the extent to which they find these arguments (and the evidence used to support them) useful/convincing or problematic. In addition, it may be useful to relate this material to your final project, by suggesting how it is or can be helpful for your work. **Students are free to select a book on their own, OR ask for advice/suggestions from the professor.**

Group Project/Content Creation (40%):
In the major assignment for the course, students will, In groups of 3 to 4, pick a topic **that must be approved by the instructor** and produce original digital work (either a digital or analogue game) that describes this topic in detail, and allows for users to 'play the past' in some meaningful way. This last point is very **open-**ended, and I want to encourage you to be creative in your thinking of what a valuable, fun, and playful historical interaction might look like as a game. I am not and will not ask you to produce a polished product ready to sell; **rather, the intention with this assignment is to provide the student with an opportunity to engage in historical making.** You will control the topic, themes, genre, story, play, message, arguments etc… of your own creation. This means that you are in charge of producing something that A) says something about history, or represents history in a tangible way, and B) **offers other users the chance to engage with this story/message/ludic experience**. To this end, you will make use of primary and secondary sources in setting the parameters and qualifying the historical statements of the game that you make. The format for this assignment is relatively **Open,** but an expectation is set that these projects will be produced with amateur users in mind, as a means of introducing them to the topic in a useful and

interesting way, while remaining **honest** to the existing research. Students will be asked to produce an **Annotated Bibliography** that contains the primary/secondary sources they have used, and provides the reader with *brief* abstracts of the information/arguments presented in them. In addition, each member of the group will be individually responsible for completing a short (1-2) **Critical Reflection Document** about the project they have undertaken. This document will include information such as: a description of how they undertook the assignment, the kinds of questions they asked about the design/narrative/history of their game, and the questions that were raised for them in the process of production, and their takeaways from the project. Finally, students will present their production to the class during the final lecture of term, describing what they made, how, and what historical information/aesthetic it seeks to present. More information regarding the structure of these projects, expectations to be met, and potential topics will be discussed in lectures.

You do not need to become an expert in a particular historical area (i.e. French Revolution) to produce an interesting historical object that is interactive and intended for an audience, **and you DO NOT need to have a background in design or coding to do this work!** But, you will need to be familiar enough with the historical content that you intend to use for your project that you can distinguish fact from commercial exaggeration. Creative license is fine, as long as you can defend why you have chosen to enact history in a particular way in your creation.

Late Policy: All outstanding assignments are deducted a half letter grade (i.e. B+ - B) for each day that they are late without prior notice and consultation with the instructor. Anyone in need of an extension for their work due to illness or other concerns **must** consult with the instructor to determine a revised timeline for completion.

REGULATIONS COMMON TO ALL HISTORY COURSES

COPIES OF WRITTEN WORK SUBMITTED
Always retain for yourself a copy of all essays, term papers, written assignments or take-home tests submitted in your courses.

PLAGIARISM
The University Senate defines plagiarism as "*presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one's own."* This can include:

- reproducing or paraphrasing portions of someone else's published or unpublished material, regardless of the source, and presenting these as one's own without proper citation or reference to the original source;
- submitting a take home examination, essay, laboratory report or other assignment written, in whole or in part, by someone else;
- using ideas or direct, verbatim quotations, or paraphrased material, concepts, or ideas without appropriate acknowledgment in any academic assignment;
- using another's data or research findings;
- failing to acknowledge sources through the use of proper citations when using another's works and/or failing to use quotation marks;

- handing in "substantially the same piece of work for academic credit more than once without prior written permission of the course instructor in which the submission occurs."

Plagiarism is a serious offence which cannot be resolved directly with the course's instructor. The Associate Dean of the Faculty conducts a rigorous investigation, including an interview with the student, when an instructor suspects a piece of work has been plagiarized. Penalties are not trivial. They can include a final grade of "F" for the course.

COURSE SHARING WEBSITES and COPYRIGHT

Classroom teaching and learning activities, including lectures, discussions, presentations, etc., by both instructors and students, are copy protected and remain the intellectual property of their respective author(s). All course materials, including PowerPoint presentations, outlines, and other materials, are also protected by copyright and remain the intellectual property of their respective author(s).

Students registered in the course may take notes and make copies of course materials for their own educational use only. Students are not permitted to reproduce or distribute lecture notes and course materials publicly for commercial or non-commercial purposes without express written consent from the copyright holder(s).

STATEMENT ON CLASS CONDUCT

The Carleton University Human Rights Policies and Procedures affirm that all members of the University community share a responsibility to:

- promote equity and fairness,
- respect and value diversity,
- prevent discrimination and harassment, and
- preserve the freedom of its members to carry out responsibly their scholarly work without threat of interference.

Carleton University Equity Services states that "every member of the University community has a right to study, work and live in a safe environment free of discrimination or harassment". [In May of 2001 Carleton University's Senate and Board of Governors approved the Carleton University Human Rights Policies and Procedures. The establishment of these policies and procedures was the culmination of the efforts of the Presidential Advisory Committee on Human Rights and a Human Rights Implementation Committee.]

GRADING SYSTEM

Letter grades assigned in this course will have the following percentage equivalents:

A+ = 90-100 (12)	B = 73-76 (8)	C - = 60-62 (4)
A = 85-89 (11)	B - = 70-72 (7)	D+ = 57-59 (3)
A - = 80-84 (10)	C+ = 67-69 (6)	D = 53-56 (2)
B+ = 77-79 (9)	C = 63-66 (5)	D - = 50-52 (1)

F Failure. No academic credit WDN Withdrawn from the course

ABS Absent from the final examination

DEF Official deferral (see "Petitions to Defer")

FND Failure with no deferred exam allowed -- assigned only when the student has failed the course on the basis of inadequate term work as specified in the course outline.

Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean.

WITHDRAWAL WITHOUT ACADEMIC PENALTY
September 30, 2019: Last day for a full fee adjustment when withdrawing from **fall** and **fall/winter (full year)** courses (financial withdrawal). Withdrawals after this date will create no financial change to fall term fees and will result in a permanent notation of WDN appearing on your official transcript.
December 6, 2019: Last day for academic withdrawal from **fall** courses.
April 7, 2020: Last day for academic withdrawal from **fall/winter (full year)** courses.

REQUESTS FOR ACADEMIC ACCOMMODATIONS
You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:

Pregnancy obligation: write to the professor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details see https://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Religious obligation: write to the professor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details see https://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Accommodation for Student Activities: write to the professor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details see https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf

Survivors of sexual violence: As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and is survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: https://carleton.ca/sexual-violence-support/wp-content/uploads/Sexual-Violence-Policy-December-1-2016.pdf

Academic Accommodations for Students with Disabilities: The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please

consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (if applicable).

PETITIONS TO DEFER

Students unable to write a final examination because of illness or other circumstances beyond their control or whose performance on an examination has been impaired by such circumstances may apply within five working days to the Registrar's Office for permission to write a deferred examination. The request must be fully and specifically supported by a medical certificate or other relevant documentation. Only deferral petitions submitted to the Registrar's Office will be considered.

ADDRESSES (613-520-2600, phone ext.)

- Department of History (2828) 400 PA
- Registrar's Office (3500) 300 Tory
- Academic Advising Centre (7850) 302 Tory
- Paul Menton Centre (6608) 500 Unicentre
- Centre for Student Academic Support – Study Skills, Writing Tutorials, Bounce Back (3822) 4th fl Library

Application for Graduation Deadlines

- Spring Graduation (June): March 1
- Fall Graduation (November): September 1
- Winter Graduation (February): December 1

Appendix G:

Carleton Research Study Critical Reflection Document

Critical Reflection Document:

Instructions: In this document, you will provide a written reflection and appraisal of your work on the final assignment. You should aim for a document that is around 4-6 pages in length, or 1000-1500 words. **However, if you need more space, feel free to take it** (within reason). In writing, you should seek to address the following questions, and you may number your responses to indicate what question you are responding to as you work through them. Finally, please include your name on the document, and identify the group you were a part of.

1) What topic did you and your group decide to pursue for this assignment, and why?

2) What is your impression of the level of 'success' you and your group achieved on the final assignment (i.e. did the game work? Did it present the topic in the way that you had hoped/expected it would?) Did you get out of the assignment what you were hoping to?

3) How did you and your group approach the assignment? How were tasks divided? How was a subject/topic and research materials agreed upon?

4) How did you address challenges that emerged while working with the software?

5) What questions did the assignment raise for you about your topic, and how did you pursue them(i.e. how do I represent this subject via this medium? How do I seek out information about it? What kinds of questions am I interested in asking and answering about it?)?

6) This assignment asked you to consider **how history is made** as you navigated making your own history in the form of a game. Can you describe how you encountered and engaged with this question as you worked through the assignment? Did this assignment encourage you to think about historical making in a way that was new or more focused? Finally, drawing from your own experiences, can you explain (in you own words) the elements **you believe work in concert to 'make history'**

7) What are your major takeaways from the assignment? What insights into history, design, or learning, if any, do you believe you have gained by participating in it?

8) What did you like about the assignment? What would you change?

9) Can you offer any insight regarding how to improve a future version of an assignment like this one?

10) Any additional comments/insights/feedback you wish to provide

Appendix H:

Carleton Research Study Voluntary Interview Questions

1) Can you provide a brief overview of your final project for the course? What subject did your group choose to pursue? How did you divide tasks? How do you feel about the final product?

2) Before this course, had you ever been given an assignment that incorporated the use of design software or digital media in some way? For example, have you been given an assignment before that tasks you with making a multimedia presentation?

3) How do you feel about the use of media in history education and in education in general? Have you found that you engage more with media or text; or, do you you notice no significant difference between the two?

4) What, if any issues did you and your group encounter over the course of the assignment in relation to the software? How did you and your group respond to these challenges?

5) Can you briefly describe, from your perspective, how you think history gets produced by professionals in the field? **How do you view you and your groups work on the final assignment in relation to this understanding?**

6) What did you like about the assignment? What do you believe was effective about it? Is there anything you would change, or improve?

7) What insights and advice would you provide for someone seeking to implement a similar assignment? How can it be done better?

8) Can you describe briefly your familiarity with history as a subject. Feel free to provide any details that you believe are helpful. This can include what you think history is, what function it might serve, whether you find it interesting, or useful.

9) How would you describe your experience with playing video games. What kind of video games do you normally play, if you do play games? Have you ever thought about the genre of historical games?

10) Outside of school, where do you encounter history most often? Feel free to provide a short list if it is helpful in answering the question

11) What resources has proven most useful for you in learning about history (e.g. textbooks, films, online content, television shows) and why?

12) If a friend (or a sibling, child, colleague etc.) were to ask you to help them understand what history is, and what historians do, how would you respond to them?

13) Do you have any questions for me, regarding the research, the course, or anything else that is related?

Appendix I:

Carleton Research Study Demographic Questionnaire:

1) Could you please state your year and major/minor field(s) of study. If you have any particular areas of interest within your major field of study (i.e. Canadian history, Sports media, Environmental Journalism), please also include these.

2) Can you please describe your familiarity with the subject of history by listing up to the last **5 courses** (including high school if necessary) that you have taken in it.

3) Could you please describe any previous familiarity or expertise you have with design or coding software of any kind, prior to taking this course (i.e. Adobe, Python, Scratch, Twine etc…)

4) Do you play digital games? If so, can you please estimate how many hours a week that you play, and list your top three games in terms of time played.

5) Can you please list the places where you most frequently encounter historical content (I.e. Online, YouTube, Games, Textbooks, Novels etc…) and provide examples (if possible) from these sources?

Appendix J:

Carleton Research Study Observation Note #1: "Re-thinking History Teaching"

Research Assistant/ Observer	Marissa Foley
Date/Time	November 4, 2019 11:35 - 2:25
School, Course, Professor	Carleton University, HIST/DIGH 3812 A, Samuel McCready
Classroom Set-Up	Tory Building lecture hall; rows arranged in typical lecture hall style with lecturer at front, intended to be behind podium. Hall looks like it fits around 60 students. The rows of seats are placed on a mild incline upwards from the front to the back of the hall. Most students are clustered in the back of the hall. Large projector screen at the centre-front of the hall. Researcher sitting on angle in corner of room, facing both students and the professor.
Research Notes:	HIST/DIGH 3812: Histories in Digital Media and Popular Culture. Around 36 students present for lecture, some of which arrived late. Class accompanied by a powerpoint presentation. Professor has a brace/cast on his foot limiting mobility, but he still manages to move around the space and position himself in front of the podium.
Descriptive Notes	11:44 - Lecture begins. Professor is sitting on the edge of front desk/table, in front of the lectern. Students participating in conversation with the professor. Students in the front two rows particularly chatty. 11:46 - Professor moves behind the lectern and class quiets; students attentively watch the prof and listen.

	11:48: Professor poses questions to the class: “What is skepticism?” A series of philosophical or comparative/situational responses are shared by students. 11:51 - Students asked to raise their hands if they are skeptical to content they consume/encounter. A large proportion of students are engaged and raise hands. When asked participatory question, one student (male) takes this as an opportunity to respond to the professor conversationally, without raising hand or other formalities. 11:54 - Professor calls on students not volunteering to define teleology. Less than five people actively writing notes, though most listening. Several looked obviously distracted and disengaged. There are two students in the back of the classroom that are having a lengthy conversation. 12:08 - Students asked to answer what types of histories have “what ifs”: what if dinosaurs never died, Aztecs/Napoleon/Nazi’s won/lost, etc. “Allows us to be critical… challenge causal change… appreciate the present and outcome isn’t necessarily logical or the only way forward.” A student shares their observation: “aren’t counterfactuals only about things being worse, not better?” 12:14 - Professor conducts a survey on Fallout. Over half the class has played. Professor asks “Why does fallout want to draw our attention to this period in time?” Professor discusses counterfactual history and it’s value: “if we pay attention, we can gain insight into knowledge received and how that knowledge is shaped.” 12:19 - Professor again surveys the class on how many learned about the Cold War in highschool. About half the class raises their hands.

	12:21 - Question and answers about 1950s aesthetic: “An era defined by fear instilled in children - parallel to the present context of active shooter drills with duck and cover exercises of the past.” 12:26 - Students describe Cold War as depicted in movies as” surveillance; paranoia and fear; threats of violence; capitalism the best, but under threat; what was happening behind the scenes more than what most people seeing. 12:30 - Professor discusses Fallout and “yesterday’s impossible tomorrow.” Fallout confronts us with a world that has actually done this. While lecturing, small and informal questions are posed, like “who is Trump’s enemy?” Answers are shared by students and lecture continues few breaks, very organically. 12:50 - Beginning of sharing media. Professor shows an image of the concept art for the Ford Nucleon. Students start to chatter, surprised. Students as a class and as small groups begin debating the front and back of the car: “Jesus Christ!” and “Where are the intena’s facing?” Student in the back of the room (who spent most of the lecture disengaged and chatting to her friend) pointing at the screen to explain their ideas about the image to her friend. 12:55 - Class Break 12:57 - Part of class left and didn’t return. During break, some small groups of students talking about their projects and curriculum. Many students are arranging the clusters they sit in based on their projects. 1:08 - Professor shows a clip from the World’s Fair and students share observations. “They were bragging about losing children.” Noting race, one student observes “a real big lack of racial diversity.” “No one is smiling there.” 1:11 - Students are shown Fallout 4 promo video. Students are lounging in their seats and seem quite relaxed while watching.

	Students laugh at vocabulary of “whizbang,” etc. One student comments, “I thought it was real, but it was just a video game ad.” Another questions if it was advocating school shootings. 1:14 - Professor shows Disney’s “Our Friend the Atom” video. Following this, students shared their observations: “Like they had full understanding of the atom and ma had control - but I’m sure there’s more to find out” (M); “the language they use is almost magical” (M); “framed as their *story* of the atom and not the history of it” (F); “language of the Cold War boiling up with it as *theirs* [Americans] - not Russian” (M), “Even after nuking things, it’s still ‘stand up to bullies.’” 1:28 - Professor asks class to consider the language and it’s reliability. “Because children know bullies. There is no built in dislike for Russians like there is for bullies.” (M) “Released as a series like Tomorrowland.” (M) “Propaganda active language.” (F) It is many of the same people participating and adding new answers to the discussion. “Bullies are lesser…. A nuisance or inconvenience.” (M) “Stylized educational video of what you’d see in school.” (F) “Gloss over the idea of combatting bullies by being a bully.” (F) 1:32 - Professor shows “House of Tomorrow” clip by Disney, from 1949 and asks students what stands out. “Some things we have today.” (F) “Against Idea of nuclear family.” (M) “They really don’t like women.” (F) “Making fun of the ideas about the future.” (F)

	The Professor noted that elements in this media source were reflective of certain times and places. He asked students what this revealed about the period. “Technology solves all problems.” “Violent.” “Chaotic and unpredictable.” “Seems like a critical future… what is progress?” “I would want more context to what is happening.” Post-war optimism suggested as the context by the Professor. Professor asks if class thinks they could watch Disney and get a look into the period it was made. Student responds with saying “white middle-class values may be present.” Class indicates they are critical of race as absent from narratives. Several students remain silent and unengaged during discussion. 1:46 - Students are shown media where “Ism” drink is being presented. Student comments indicate they are very cognizant of race. One mentions “locked ballot box double meaning” (M) and another explains “not calling stuff by it’s name is making it easy for kids to understand.” (F) “What America is - starts off with everything okay in the US, but it isn’t… soon it’ll taper out.” Professor explains the obvious messages in this media, and suggests they may be present in sitcoms and other sources. Explains that behaviours can be regulated by demonizing certain pieces through TV, which is cognitive dissonance. 1:59 - Students continue to share observations on messaging in media like this. It is noted that this approach to presenting the other/opposition is “dehumanizing,” “non-human,” and creates a sense of “pride in not being them.” 2:10 - Class ends.
Analytical notes	I, the research assistant, am a second year MA student studying public history at Carleton and have been a TA for other history courses in the department for a year and a half. My experience as a TA has influenced my observational approach.

Observation Note #2: "Re-thinking History Teaching"

Research Assistant/ Observer	Marissa Foley
Date/Time	November 25, 2019 11:35 - 2:25
School, Course, Professor	Carleton University, HIST/DIGH 3812 A, Samuel McCready
Classroom Set-Up	Tory Building lecture hall; rows arranged in typical lecture hall style with lecturer at front, intended to be behind podium. Hall looks like it fits around 60 students. The rows of seats are placed on a mild incline upwards from the front to the back of the hall. Large projector screen at the centre-front of the hall. Researcher sitting on angle in corner of room, facing both students and the professor.
Research Notes:	HIST/DIGH 3812: Histories in Digital Media and Popular Culture. Around 30 students present for lecture, some of which arrived late. Class accompanied by a powerpoint presentation. Professor has a brace/cast on his foot limiting mobility, but he still manages to move around the space and position himself infront of the podium.
Descriptive Notes	11:40 - class begins conversationally - "what's up?"; students are asking questions about upcoming weeks, specifically GoT episodes to watch; prof talks about group projects and essays to be handed back. 11:45 - showing youtube clips to class of digitial media and how it gets mobilized: "Tucker: Left won't stop with Civil War era monuments" and "Chris Hayes: white supremicists 100% right about statues, MSNBC." Prof explains intention to provide two distinct perspectives

	mobilizing history in their evidence, conclusions, questions, etc. 11:50 - nearly all students watching attentively; following Carlson clip, prof gives context of this as most watched news show. Student requests volume lowered, rof quick and kind to respond and modify - reflects the comfortable relationship between students and the prof. 11:57 - Hayes clip played; following clip, prof moves to sit on desk in front of the podium and asks “so what did you think?” Students immediately begin responding to Q: “I think that the statues represent the good and the bad side of history” (F); multiple hands are up while Qs being answered by students, a very fruitful and lively discussion. 12:01 - student identifies “factual versus emotional response”; next respondent thinking more broadly of all other media influencing people “I found it interesting how both are taking this topic to each extreme for mobilizing” (M) “Interesting how much they’ll take from history, but how much they’ll ignore, about revolutions” (M) Prof takes thread from student response and talks about continuum of change for history, a useful way to further discussion and make it a conversation - starts responding by speaking directly to student commenter, then address the rest of class. 12:05 - Prof poses questions to class about place of serious conversations on these issues, triggering organic responses without raised hands from students - only a few speak aloud though conversationally, not rowdy. 12:08 - Prof moves to giving context about we have historically understood our world, starting with phenomenon of mythology - metanarratives and grand narratives. While lecturing, engagement of students varies - no powerpoint being used - a few students are typing, presumably taking notes, others are watching attentively as the prof talks, a handful of

	students are visibly disengaged (esp. Students in the back) 12:15 - Prof asks “Who wrote the book about ---” as an aside in a lecturing moment and 2-3 students quickly respond with an authors name demonstrating a level of engagment and listening in the lecture. 12:20 - birth of 24 hour news cycle in the 80s - CNN cable news format and other networks competing At this point, fewer students taking notes - most still seem engaged, but declining Throughout the lecture, jokes and references to shared lived experiences - i.e. the introduction of smart phones - helpful in bringing back student interest and attention. Prof speaks at slow, rhythmic pace - very easy to understand and listen, not monotone - many references to present context and technology, pop culture references, and use of hand gestures. Lecture portion about 30 minutes - asks if any questions but no hands raised. Wraps up by “introducing us to value in certain kinds of modern history.” 12:31 - reference again to shared digital experiences, like reading youtube comments, or pop-culture references like “the darkest timeline,” triggering laughter and snorts from class. 12:35 - Prof asks “what interests you about history?” - again, students quick to respond. “People are interesting - how they think and find meaning in the world.” (F) “I like understanding how we got here and that big change is possible” (M) “ Trying to understand things that were plainly understood in the past, but that we cannot conceptualize, like magic!” (F) “I like the stories” (F) This created a very exciting conversation, people laughing, adding

	funny remarks, sharing thoughtful reflections, etc. The energy in the room increases, and people in the back of the lecture hall re-engage and contribute to the conversation. 12:45 - conversation wrapping up by prof: “so the point of all this is that we can change the way in which we think about and do history…” linking it back to the conclusions of the readings and to the youtube clips viewed earlier. 12:50 - prof introduces media “Ancient Aliens” to be watched after the break. 1:00 - During the break, Prof handing back papers - students names known by the Prof which opens up space for a conversation, familiarity. 1:10 - Post-break, prof introduces “Ancient Aliens as main media and asks students to consider four main questions from earlier. 1:54 - post-video discussion: “taking efforts and beliefs of other cultures as “Alien” and Bible as proof and historical evidence.” (M) One student comments on repeated line in the film: “What if this were true?” observing that the crux of this media piece is “relativity” - “this is all relativity.” (M) A lively conversation that the prof keeps on track by asking focused questions and how we can understand important lessons from this. 2:06 - prof prompts students to think about the way skeptical works of fictions can be used in history? - high participation, 2:10 - people beginning to pack up, but still participating - using absurd examples and jokes to keep students engaged, entertained, and contributing. 2:15 - final announcements, what to expect next week, and wrap up.
Analytical notes	I, the research assistant, am a second year MA student studying public history at Carleton and have been a TA for other history courses in the department for a year and a half.My experience as a TA has influenced my observational approach. This class seemed much more engaged and comfortable than many others from other

	courses I have been a part of. The most notable difference for me is the speed at which students respond to questions is much quicker and more meaningful. Students seem comfortable enough in the class to contribute their ideas in organic conversations during the length of the course, and even add in jokes once in a while. There is a positive energy in the room, and it seems as though the students genuinely like the prof and the course material. From my perspective, it seemed as though the structuring of the lecture - flipping regularly between digital media and traditional lecturing - helped to keep students constantly engaged. After a 30 minute period of straight lecturing, I could see some students starting to drop off; this was the longest length of time Prof. McCready would talk for before mixing things up and switching to a different approach, to his benefit. The conversations in response to the media sources were consistently more lively and energetic than those in response to lecture material, though overall there was high levels of interest and participation in all conversations. When returning papers during the half-time break, the prof made an effort to use students names if he knew them, and learn those he did not. In doing this, students were more likely to have a quick chat and I think this was important in developing the broader atmosphere in the course which was conversational, collaborative, and casual. This atmosphere made it feel like a space safe to share ideas I am healing from a concussion, and had more difficulty completing detailed notes on student responses towards the end of the class.

Observation Note #3: "Re-thinking History Teaching"

Research Assistant/ Observer	Marissa Foley
Date/Time	December 2, 2019 11:35 - 2:25
School, Course, Professor	Carleton University, HIST/DIGH 3812 A, Samuel McCready
Classroom Set-Up	Tory Building lecture hall; rows arranged in typical lecture hall style with lecturer at front, intended to be behind podium. Hall looks like

	it fits around 60 students. The rows of seats are placed on a mild incline upwards from the front to the back of the hall. Large projector screen at the centre-front of the hall. Researcher sitting on angle in corner of room, facing both students and the professor.
Research Notes:	HIST/DIGH 3812 - Histories in Digital Media and Popular Culture: Myth, Folklore, and the Rise of Pop-History About 33 students present. Class accompanied by a powerpoint presentation. Professor has a brace/cast on his foot limiting mobility, but he still manages to move around the space and position himself in front of the podium.
Descriptive Notes	11:35 - class begins Reviewing upcoming assignment due date, and class asking questions about assignment. Again, same five students asking questions and participating. Professor outline the presentation expectations and minimum of what it needs. 11:50 - Lecture begins with prof aiming to “synthesiz[e] content of the course and come full circle” by revisiting challenges of pseudo-history and where to find it, asking about historical consciousness. Game of Thrones as fiction but also presenting a recognizable political world reflecting what we think of our own systems as cut-throat. 11:54 - Professor asks how to create realistic history and “what constitutes legitimate history in a digital society? Slow uptake from class to answer question. “Legitimate history is primary sources - like monographs. They’re

	sometimes old and outdated" (F) "How much does presentation matter rather than what the evidence is?... limiting to say only academic essays are legitimate" (M) "It's insidious - you passively absorb ideas, even if on the surface you know it's fantasy" (F) Professor asks: "Do you think there is legitimate history anymore?" "Whatever product you look at is still made and influenced by one persons perspective - nothing is above bias." (M) "When a TV show gets something wrong, there is a public pile-on. When it happens in a book, not a top story on twitter feeds." "What is art? What artists accept. Same with history and monographs." Student responses consider the spread and reach of different mediums, and engage with both the prof and each other in their responses. Majority of the class alert and listening during this discussion. 12:04 - Professor asks: "How might we approach process on engaging with these media in a meaningful way?" "There needs to be a new way to go about researching and writing historically about new media content like tweets." (M) One student (F) recognizes learning through youtube videos - "The History of Japan." Professor then bridges conversation to textbooks as approach to education. 12:13 - Professor asks: "How do you think about authorship... policing and managing?" "Not sure policing happens" (M) "Influence of conspiracy and rise of it…" "If you can find it and read it, you may think it's true - people's bias seek out what they want to be true, like echo chambers" (F)

	Professor asks: “Do you think skepticism is to blame?” Students express thinking about how society deals with technologies, and how broader society uses and regulates. 12:21 - Conversation on conspiracy theories and why they thrive continues. Professor asks question on defining and policing access - need access to reputable news or academic journal, but these items behind a paywall. 12:27 - Professor asks: “What do you think your history university background contributes to how you’ll do history? What will history programs look like in 20-50 years?” One student suggests podcasts versus in-class lectures. Online learning expanding in the future. History as subject and discipline has not contended with questions of technology going forward, according to Prof. 12:40 - Professor introduces media source of the day, taking survey of how many students have watched Game of Thrones. Media of day is the first episode of Game of Thrones. CLASS BREAK 1:00 - Introducing the media. GofT presented to be real, but it isn’t. Taking from European medievalism. 1:50 - Professor asks what makes GofT medieval. Class discussion begins promptly. Students note: torches, language, clothing, architecture, weaponry, lighting, gender dynamics. Identifying tropes like the Dothraki as savages, other real historical groups; othering of bastards and broken things (M); lineage important for political system here (M); European situating: ritual, performance, poly-theism (M). Professor asks what allows us to place this show in this period? Students note stereotypes and popular understanding.

	Professor asks how might we challenge something like this to make it useful as a historical reference point? “Take certain points and say where in history it’s inspired from in the real world.” (M) “Tells us about a counter-factual based on contemporary moral conflicts... helps us understand dilemmas of today” (F) “Executes violence as normal without contesting it - what plays well now and in 2011? Is it the same? “Fantasy world as a defense because anything flies in a world with no rigid boundaries, but still fits into a popular understanding.” 2:10 - Professor asks what we expect to see when we create a recognizable medieval world, and where these expectations come from. Are we basing engagement off of preceding media (like Braveheart) rather than books and actual period content. 2:15 - Class wraps up with announcements about presentations and beta testing.
Analytical notes	I, the research assistant, am a second year MA student studying public history at Carleton and have been a TA for other history courses in the department for a year and a half. My experience as a TA has influenced my observational approach. During this lecture, students were very excited and energetic about the content, and this showed through in their participation. A sense of community fostered throughout the length of this course was very visible during discussions in this lecture where students were acknowledging and responding to each other during class discussions. For a class of over 30 people, this was an interesting dynamic to observe. I am healing from a concussion which has placed minor limitations on my note-taking ability.