Abstract

Video games can be fun and engaging. Yet they also have the potential to promote learning and skills like problem solving and collaboration. In this course, we will investigate how, why, and when video games can foster learning on multiple levels: we will observe our own learning as we play and explore a game, we will observe how others learn as they play, and as a class we will read and critique research on games and learning. This course will deepen your understanding of the kinds of learning and social interactions video games encourage as well as help you develop critical thinking skills around the research on games and learning. The final assignment can be catered to your interest: design a prototype of a game for learning, design a curriculum around a game(s), or conduct research on games and learning. Please note, in addition to the required text, students are also required to fund their playing of a contemporary video game.

Course Overview

If someone were to write the intellectual history of childhood—the ideas, the practices, and the activities that engage the minds of children—it is evident that the chapter on the 21st century would need to give a prominent place to video games and virtual worlds. The number of hours spent in front of these screens surely reaches the hundreds of billions. And what is remarkable about this time spent is much more than just quantity. Psychologists, media researchers, designers, educators, and parents are struck by a quality of engagement that stands in stark contrast to the half-bored watching of many television programs and the bored performance exhibited with school homework. Like it or not, video
Games and virtual worlds are clearly a highly significant component of contemporary children’s culture. A generation of kids has grown up playing digital games and continues to do so into their adulthood. The game industry now rivals the movie industry in revenue has joined mainstream media. We also have witnessed a dramatic shift in the public and academic discussions. Researchers from various disciplines are investigating and designing games for learning and teaching. What’s behind all of this sudden interest in games?

This course presents current discussions in newspaper articles, policy reports, and research reviews that are debating the educational promise of digital games. Drawing on work from education, psychology, communication, and the growing field of game studies, we will examine the history of video games, research on game play and players, review how researchers from different disciplines have conceptualized and investigated learning in playing and designing games, and what we know about possible outcomes. We will also address issues of gender, race and violence that have been prominent in discussions about the impact of games.

No prior knowledge or experience in video games or virtual worlds is a prerequisite for taking this course. As part of this seminar, students are expected to participate in class discussions, reflect on their own history of playing traditional (card, board) and/or digital games, learn to play a game or virtual world of their own choosing and design a game, and write a research or design paper within the scope of the course focus.

**Course Objectives**

The course is designed to explore the following core questions:

- What are video games and virtual worlds? How have researchers studied gaming and game players?
- What are different ways to describe and analyze learning practices and cultures in digital games?
- What kinds of practices and communities are formed outside of games themselves, and how are these productive for learning & identification?
- What do we know about engagement and learning of K-12 academic topics such as mathematics, science, and social studies with games inside and outside of schools?
- Who plays games, and who does not? How do players and designers deal with issues of gender, race, violence, and ethics in games?

**Course Format**

Delivery of this course is online/face to face, through the Canvas learning management system. Each week of the course begins and ends on a Tuesday, although some assignments will have deadlines on Fridays (those assignments usually involve leaving feedback on others’ work – peer review, discussions, and commenting on others’ posts).

You can expect the following from the instructor:

- Quick responses to requests to meet with the instructor by phone, in person, or in a virtual conference room (within 48 hours but more quickly on weekdays). Should there be multiple student requests (at least 1/3 of the class), a formal conference
day and time will be scheduled and an announcement encouraging others to participate will be made on the course site.

As a graduate course, you will be doing a fair amount of independent reading and gaming; you need to be a self-motivated and independent learner. Please be aware that the lectures (in persona and online) and the course readings are complementary. You will not be able to succeed in this class if you only watch lectures or overviews and skip the readings.

**Asking Questions about the Material**

Questions are best asked on the *Help Discussion Boards*. Many students will benefit from hearing your questions and others’ responses. If you have a question, it is very likely that others do too. And if you have an answer you could receive a few extra credit points. Questions regarding personal concerns may also be sent to the instructor via email, but most questions should be posted online.

**Required Course Readings**

Kurt Squire. *Video games and learning: Teaching and participatory culture in the digital age.* New York: Teachers College Press. Available in paperback from the bookstore, and online booksellers such as Amazon, Borders, Barnes & Noble, and others.

These textbooks are available through the USU bookstore and also through online retailers (where they are often less expensive). Throughout the course, the books will be abbreviated using the following: **VGL** – *Video Games and Learning*.

Other course readings are available through links or pdfs online through Canvas.

Students are responsible for funding their own gameplay of a substantial videogame.

**Course Requirements**

You are expected to check in the syllabus and with the course website regularly and meet all posted deadlines. You are also expected to follow the order of the assignments listed in each learning module, unless otherwise posted.

**Assignment 1: Game Autobiography (Pass/Fail) (5%)**

Due in class/online January 13

As we begin to study games and virtual worlds as designs for learning it is helpful to understand our own history with gaming and how it might frame our perception of games and learning. Prepare an **oral account** (5-10 minutes) *if you are participating in the face-to-face class*. Provide a **written account** *if you are participating in the online class*. Highlight some of your prior experiences with playing games, digital or not: which games were your favorites, what games were played in your family, which games did you play with your
friends, which games do you continue to play now, and any other relevant experiences and observations.

**Assignment 2: Game Blog (40%)**

Each of you is expected to select and learn one game or virtual world during for 8 weeks. This means that you will need to spend at least 2-3 hours online or “in-game” each week so that you can ground our discussions not just in readings but also in personal experiences. As part of your game play you can also participate in discussion boards, visit cheat sites, read game magazines and blogs — anything which pertains to that game or virtual world. Each week you will share your gaming experiences in a blog and reflect on your experiences. One way to think about the game review notes is to make it look like a journal documenting how you learn to play. Another way is to capture a screenshot of an interesting game play instance and explain what you learned here or what was difficult — anything you find worthwhile. Yet another way is to tie your reflections to the weekly class topics. For instance, when the readings will focus on gender, you could make gender a focus of your observations captured in the game review notes that week; when they are on violence, and so on.

*Games must be instructor approved and must be substantial (i.e., Bejeweled, Solitaire, even Angry Birds won’t do the trick here)*

**Assignment 3: Gamer Profile (15%)**

In this assignment, you will observe and interview someone playing a videogame for the first time. We have a list of games that you can choose from (list). You can observe anybody, of almost any age — friends, relatives, children, colleagues. The purpose is to understand how they play, their learning, problem solving, etc and write a report of the session. Spend about 30 minutes watching them play. Ask them to talk aloud as they play. Feel free to ask them questions, “Why did you do that?” “How did you figure that out?”

Write a profile of your participant that tells the reader:

- Who they are (use pseudonyms; age, gender)
- How often they play games.
- What kind of games do they play? (It is ok if they don’t play any games. Just make sure they How they went about their game play.
- What did you learn from watching them?

Link it to your experience playing games and the readings/theories from class. If you are one of those people who wants guidance on how much to write, consider writing ~300 words describing the gameplay, and 300 words reflecting on it.

**Assignment 4: Game Report (Face-to-Face Only) (10%)**

You are expected to prepare an overview of the game you played for others in class. In this presentation, you prepare a guided tour of the game, highlight key aspects of your gaming experience, and connect to themes discussed in class (learning, gender, race, ethics, design, knowledge building, etc.).

**Assignment 5: Final Project (30%)**
You have three choices for a final project. And depending on the choice you may also propose to work in a small group or partnership. **ALL final projects must receive instructor approval before you begin.** Every final project will go through the following sequence:

- Proposal
- Draft & Peer Review
- Presentation

**Choice 1: Traditional term paper.**

You will write a research or design paper on a topic of your own choosing and in consultation with the course instructor(s); it is possible to collaborate on papers. The only requirement is that the topic draws from the course. You will be asked to give a presentation of your preliminary findings on **April 12** (details provided later) in class/online to receive feedback. You will then have 2-3 weeks to finish your paper and submit the final version by **May 3rd, 9pm** to the course blackboard site. The final paper should be between 3000-3500 words (about 8 single-spaced pages) excluding references and graphics.

**Choice 2: Make a game for learning.**

You will create your own game with purposes for learning. This is a technical and design challenge. If you make this choice, we encourage you to use an existing platform like Aris (for augmented reality) or Scratch. Warning: Don't get so caught up on the technical side of things that you neglect the actual design of your game. In some cases, a detailed layout of a game intended to be designed for technical platform may be adequate (i.e., you want to design a full-blown role-playing game but are not a full 100-person technical team).

- ARIS
- Scratch
- Unity
- Flash

**Choice 3: Create an instructional unit.**

You will create an instructional that uses games for learning or applies principles from games to reshape learning in your instructional environment. This should be bigger than just a lesson. It should encompass a topic in some course or area of formal (or even informal) learning and cover it through a set of lessons and experiences. Perhaps you want to redesign a curricular unit in a course that you teach. Perhaps you want to develop a new unit for a museum or a science club or a writing workshop or a Sunday School unit. In addition to developing the curriculum you will write a 1-2 page explanation of the how and why behind the curriculum and your choices:

- How does the game help foster learning?
- Why did you choose this particular game or format?
Class participation (Face-to-face and/or Online) (10%)
Throughout the term, you will be asked to participate in discussions and activities in person (for the face-to-face class) and online. Online students are required to post questions and comments on weekly discussion boards. These are ungraded but required. Be thoughtful, ask questions, provide answers, really dig into the texts and ideas!

Your overall participation in the discussion boards, in class, and in short online activities will be considered when determining your level of participation at the end of the semester. Also, note that Canvas maintains automatic records of what resources you use on the website. Your use of online materials will be considered when determining your level of participation.
# Course Overview

<table>
<thead>
<tr>
<th>Date</th>
<th>Class</th>
<th>Topic</th>
<th>Notes</th>
</tr>
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<tbody>
<tr>
<td>January 13</td>
<td>Class 1</td>
<td>Introduction</td>
<td>Game Autobiography</td>
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<tr>
<td>January 20</td>
<td>Class 2</td>
<td>Historical Perspectives on Games</td>
<td>Propose Game Blog</td>
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<tr>
<td>January 27</td>
<td>Class 3</td>
<td>Gaming Cultures</td>
<td>Game Blog 1</td>
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<tr>
<td>February 3</td>
<td>Class 4</td>
<td>Games as Learning Environments - Play</td>
<td>Game Blog 2</td>
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<td>February 10</td>
<td>Class 5</td>
<td>What is a game?</td>
<td>Game Blog 3</td>
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<td></td>
<td></td>
<td>Play Pandemic (f2f only)</td>
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<tr>
<td>February 17</td>
<td>No class</td>
<td>President's Day</td>
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<tr>
<td>February 24</td>
<td>Class 6</td>
<td>Games as Learning Environments - Design</td>
<td>Game Blog 4</td>
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<td>Play Labrynth</td>
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<tr>
<td>March 3</td>
<td>Class 7</td>
<td>Games as Learning Environments - STEM</td>
<td>Game Blog 5</td>
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<td></td>
<td></td>
<td>Play Turn Up the Heat</td>
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<tr>
<td>March 10</td>
<td>No class</td>
<td>Spring Break</td>
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<tr>
<td>March 17</td>
<td>Class 8</td>
<td>Games as Assessments</td>
<td>Game Blog 6</td>
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<td></td>
<td></td>
<td>Gamer Profile</td>
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<tr>
<td>March 24</td>
<td>Class 9</td>
<td>Minecraft, Mods &amp; Knowledge Building</td>
<td>Game Blog 7</td>
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<tr>
<td></td>
<td></td>
<td>Play Minecraft</td>
<td></td>
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<tr>
<td>March 31</td>
<td>Class 10</td>
<td>Making Games for Learning</td>
<td>Game Blog 8</td>
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<td></td>
<td>Final Project Proposal</td>
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<tr>
<td>April 7</td>
<td>Class 11</td>
<td>Game Making Communities</td>
<td>Game Presentation</td>
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<tr>
<td>April 14</td>
<td>Class 12</td>
<td>Gender, Race, Culture &amp; Gaming</td>
<td>Final Project Draft &amp; Peer Review</td>
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<tr>
<td>April 21</td>
<td>Class 13</td>
<td>Presentations of Final Project Progress</td>
<td></td>
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<tr>
<td>April 28</td>
<td>Finals</td>
<td></td>
<td>Final Project Due</td>
</tr>
</tbody>
</table>

Final Project Due by 9pm

Final Project Due
Class Schedule

1/13 Introduction
Readings:
Kurt Squire. *Video games and learning: Teaching and participatory culture in the digital age.* (Preface & Chapter 1).

Deadlines:
Game Autobiography

1/20 Historical Perspectives on Gaming
Readings:


Yee, N. (2014). *The Proteus Paradox: How Online Games and Virtual Worlds Change Us-And How They Don't.* Yale University Press. (Chapter 1)


Further Reading:


Deadlines:
Game Proposal: what game will you play?

1/27 Gaming Cultures
Readings:

Youth, Games, and Learning (pp. 41–66). Cambridge, MA: The MIT Press.


Deadlines:
Game Blog 1

2/3 Games as Learning Environments – Play

Readings:
Kurt Squire. Video games and learning: Teaching and participatory culture in the digital age. (Chapters 2-3).


Further Reading:

Deadlines:
Game Blog 2

2/10 What is a game?

Readings:
Kurt Squire. Video games and learning: Teaching and participatory culture in the digital age. (Chapter 9)


Watch:
Kati Salen, Karaoke Ice: https://www.youtube.com/watch?v=9HASXz7RB5U

Frank Lantz, realworld games TEDx talk https://www.youtube.com/watch?v=UcD7p7snqNg
Further Reading:

Visit the Vanished website and learn about the ARG developed at MIT:

- Vanished website: [http://vanished.mit.edu/about](http://vanished.mit.edu/about)
- Vanished in the news: [http://www.argn.com/2011/03/the_smithsonian_and_mit_helps_your_kids_get_vanished/#more-5092](http://www.argn.com/2011/03/the_smithsonian_and_mit_helps_your_kids_get_vanished/#more-5092)
- Video about Vanished from the Sandbox Summit: [https://www.youtube.com/watch?v=pTpI3fEcZvU](https://www.youtube.com/watch?v=pTpI3fEcZvU)

Deadlines:
Game Blog 3, Play Pandemic (f2f only)

2/17  President’s Day. No Class

2/24  Games as Learning Environments - Design
Readings:
Kurt Squire. *Video games and learning: Teaching and participatory culture in the digital age.* (Chapters 4 & 6)

Further Reading:

Eric Zimmerman’s blog post on Iterative Design: [https://ericzimmerman.wordpress.com/2013/10/19/how-i-teach-game-design-lesson-1-the-game-design-process/](https://ericzimmerman.wordpress.com/2013/10/19/how-i-teach-game-design-lesson-1-the-game-design-process/)

Deadlines:
Game Blog 4

3/3  Games as Learning Environments - STEM
Readings:
Kurt Squire. *Video games and learning: Teaching and participatory culture in the digital age.* (Chapter 5)


Play:
Download, print & play Turn up the Heat.
http://tidal.northwestern.edu/greenhomegames

Further Reading:

Deadlines:
Game Blog 5
Play Turn Up the Heat

3/10  Spring Break. No Class

3/17  Games as Assessments
Readings:

Play:
The Radix Endeavor. Create a player account
https://www.radixendeavor.org/user/login?destination=%3Cfront%3E

Deadlines:
Game Blog 6
Gamer Profile
Play Radix

Further Reading:
3/24  Minecraft, Mods & Knowledge Building
Readings:

Play:
Minecraft

Deadlines:
Game Blog 7
Play Minecraft

3/31  Making Games for Learning
Readings:

Further Reading:

Deadlines:
Game Blog 8
Final Project Proposal

4/7  Game Making Communities
Readings:


Further Reading:


Play:
Visit Scratch.mit.edu, search for video games, play 2 games (recommended: look at the “featured” section).
Visit GameStar Mechanic & play through 2 tutorials.

Deadlines:
Game Presentation/Reflection

4/14 Gender, Race, Culture & Gaming
Readings:


Further Reading:

_Deadlines:_
Final Project Draft & Peer Review

4/21 Presentations of Final Project Progress

_4/28 Final Project Due by 9pm_
Grading scale

There is no curve for the class. Grades will be assigned based on the scale below, with your final grade rounded to the nearest tenth of a percentage point.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
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<tbody>
<tr>
<td>A</td>
<td>93 – 100%</td>
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<tr>
<td>A-</td>
<td>90 – 92.9%</td>
</tr>
<tr>
<td>B+</td>
<td>87 – 89.9%</td>
</tr>
<tr>
<td>B</td>
<td>83 – 86.9%</td>
</tr>
<tr>
<td>B-</td>
<td>80 – 82.9%</td>
</tr>
<tr>
<td>C+</td>
<td>77 – 79.9%</td>
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<tr>
<td>C</td>
<td>73 – 76.9%</td>
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<tr>
<td>C-</td>
<td>70 – 72.9%</td>
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<tr>
<td>D+</td>
<td>67 – 69.9%</td>
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<tr>
<td>D</td>
<td>63 – 66.9%</td>
</tr>
<tr>
<td>D-</td>
<td>60 – 62.9%</td>
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</tbody>
</table>

Resubmission Policy

Resubmission of assignments on which you lost points is possible by two weeks from the date I submit feedback, or Friday, April 17, whichever comes first. You only get to resubmit once per assignment. You may only resubmit if your original submission is complete (i.e., if you submit a partial lesson plan by the original due date, you do not get a chance to resubmit). If the original submission was late, then you cannot resubmit. You may only do this for up to the first 6 weeks of the course unless explicit permission is given by the instructor.

USU Criteria for Make-Up of Missed Assignments or Projects

Students will be allowed to make up assignments or projects at full credit only if they meet one of the following criteria:

- Incapacitating illness prevents a student from attending classes for a minimum period of two weeks,
• A death in the family,
• Financial responsibilities requiring a student to alter a schedule to secure needed employment,
• Change in work schedule as required by employer (with verification) or,
• Other emergencies deemed appropriate by the instructor.
If there are extenuating circumstances, a student may petition the instructor for time beyond the deadline. Documentation of the circumstances cited to justify the make-up is required.

Plagiarism
As stated in the USU Student Code, plagiarism is “the act of representing, by paraphrase or direct quotation, the published or unpublished work of another person as one’s own in any academic exercise or activity without full and clear acknowledgment. It also includes using materials prepared by another person or by an agency engaged in the sale of term papers or other academic materials.” Plagiarism is harmful both for the author of the original work and for the plagiarizer. Any individuals involved in plagiarizing work will receive an automatic fail for the assignment or project and will be immediately reported to the university administration.

Persons with Disabilities
Students with documented disabilities who are in need of academic accommodations should immediately notify the instructor and/or contact the Disability Resource Center at (435) 797-2444 and fill out an application for services. Accommodations are individualized and in accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1992.

Incompletes
In accordance with University policy, incompletes are not to be given for poor performance. There will be no incompletes given except for conditions beyond the student’s control, including:

• Incapacitating illnesses that prevent a student from attending classes for a period of at least two weeks
• A death in the immediate family
• Financial responsibilities requiring a student to alter course schedule to secure employment
• Change in work schedule as required by an employer

Other, unexpected emergencies may be considered on a case-by-case basis. Regardless of the cause for the incomplete, appropriate documentation of the circumstances is required for an extension to be considered.

Written Assignments
Unless otherwise advised in advance, all written assignments are to be completed in the following format:

1. MS Word file with your name and assignment type in the file name.
2. 8.5 x 11, single-spaced.
3. Times or Times New Roman, 12 pt. font, your name on first page.
4. Submitted by electronic copy through email.

ALL ASSIGNMENTS MUST BE ORIGINAL WORK

Plagiarism will result in a failing grade. The preferred style for bibliographic referencing is APA (American Psychological Association). You can find details about APA documentation on the following helpful website: http://www.wisc.edu/writing/Handbook/DocAPA.html. For educational research, the most popular database is ERIC (Education Resources Information Center). This can be found online at: http://www.eric.ed.gov/.

10 Pointers for Good Academic Essay Writing

1. A good general rule to follow in the structure of your papers is “tell them what you’re going to say, tell them, then tell them what you said”. In the introduction, provide a roadmap of what you are going to say in the paper. It will help your own organization and organizes the paper for the reader to follow your arguments along.
2. Be explicit about your questions, thesis, perspective and put it up front in your introduction. It’s best not to leave your reader(s) guessing what the paper is about.
3. Provide signposts or points to your roadmap, e.g., “in this section, the following point...” or “to summarize” or “having covered the...we will now turn to...”
4. Section titles are also good as signposts but be sure that the content of the section reflects the title of the section.
5. Use transition sentences that build from pervious information and connects to the next.
6. Explain terms. Don't put them in quotes and assume the reader will know what you mean. Try very hard not to make assumptions about what the reader knows even though you know who the reader is and he/she might be an expert in your topic. The point is for you to demonstrate that you know the material.
7. Be consistent with your bibliographic referencing style.
8. Be careful not to over-generalize, e.g., “many theorists...” when you are only referencing one study.
9. Don’t assume everyone sees or agrees with your perspective, you need to convince the reader of your perspective.
10. Summarize in the conclusion, what you wrote about in the body of the paper. Tie your conclusions back to your original question...how have you proven, answered, shown, presented information that addresses it. Don’t introduce new information in the conclusion. It detracts from the cohesiveness.