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 or design a curriculum around a game(s). 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 - it 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?

**IDEA Learning Objectives:**

- Learn fundamental principles, generalizations, or theories about video games and virtual worlds
- Gain a broader understanding and appreciation of gaming and gaming communities
- Learn to analyze and critically evaluate ideas, arguments, and points of view

**Course Format**
Delivery of this course is online, through the Canvas learning management system. Each week of the course begins and ends on a Wednesday, 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 or TA 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 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**
Course readings are available through links or pdfs online through Canvas.

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

Students will need to occasionally register for free accounts to games (have a junk email address ready).

**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%)**
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. Provide a written account. 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 (20%)**
Each of you is expected to select and learn one game or virtual world for 5 weeks. This means that you will need to spend at least 1-2 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 gameplay 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. Please note, you will write a final reflection in week 6.

*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 (5%)**

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 must observe a child (age 6-15). 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.)
- 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. If you do not know a child contact the professor.

**Assignment 4: Class Games (20%)**

Several weeks we will play and evaluate games together. These games are listed under each weeks assignments. You are expected to articulate:

- What you did in the game (bullet points are ok)
- At what point did you struggle
- How did you overcome those struggles
- Did you receive help from the community or your classmates?
- Do you see opportunities for learning in the classroom or another learning context?

**Assignment 5: Final Project (30%)**

**Choice 1: 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?
- How does this game help learn this content in ways that face-to-face instruction can not?

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

Class Participation (20%)

Throughout the term, you will be asked to participate in blogs and activities online. You are expected to write one blog post each week and comment on two others. The comments should be more substantial than “great idea.”

Your overall participation in the 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.
### Class Schedule

Note: the course schedule is subject to change, that is, it is a plan rather than a contract. You will be notified in Canvas about any changes to the schedule or existing content.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Reading/s</th>
<th>Game To Play</th>
<th>Assignment Due</th>
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<tbody>
<tr>
<td>1</td>
<td>May 8-13</td>
<td>Intro</td>
<td>Squire, K. Chapter 1. Why study video games?</td>
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<td>Game Autobiography</td>
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<td>Also explore Gee’s 36 learning principles at <a href="http://edurate.wikidot.com/the-36-learning-principles">http://edurate.wikidot.com/the-36-learning-principles</a> (These are taken from Gee, J. P. (2003). What video games have to teach us about learning and literacy. New York: Palgrave Macmillan.)</td>
<td>Watch Squire video: <a href="https://d396qusza40orc.cloudfront.net/videogameslearning/recoded_videos%2FGames%20as%20Designed%20Experiences%20Part%2001%20-%20Squire.7aa39252a11a1a787e765aa3539e96c9.webm">https://d396qusza40orc.cloudfront.net/videogameslearning/recoded_videos%2FGames%20as%20Designed%20Experiences%20Part%2001%20-%20Squire.7aa39252a11a1a787e765aa3539e96c9.webm</a></td>
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<td><strong>Ecology of Games</strong> glossary</td>
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<td>Play Pokémon Go. Game Proposal: What Game Will You Play? Watch: Jane McGonigal The Game that can give you 10 Extra years of life (Gamification) Talking about the game Superbetter: <a href="https://www.youtube.com/watch?v=lfBpsV1Hwqs">https://www.youtube.com/watch?v=lfBpsV1Hwqs</a> Extra viewing: Gaming can make a better world <a href="https://www.youtube.com/watch?v=dE1DuBesGYM">https://www.youtube.com/watch?v=dE1DuBesGYM</a></td>
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<td>Also explore Gee’s 36 learning principles at <a href="http://edurate.wikidot.com/the-36-learning-principles">http://edurate.wikidot.com/the-36-learning-principles</a> (These are taken from Gee, J. P. (2003). What video games have to teach us about learning and literacy. New York: Palgrave Macmillan.)</td>
<td>Game Blog 2</td>
<td></td>
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**Squire, K. Chapter 3: Learning Through Play**

Games as the play of learning: 363-374

Salen, K. Rules of Play Unit 3, Defining Play 301-311.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Details</th>
</tr>
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Recommended:

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**http://edurate.wikidot.com/the-36-learning-principles**


Eric Zimmerman’s blog post on Iterative Design

Recommended:
<table>
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<tr>
<th>8</th>
<th>June 26-July 1</th>
<th>Gamification</th>
</tr>
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<tbody>
<tr>
<td>Website: gamification network <a href="http://gamification-research.org/about/">http://gamification-research.org/about/</a></td>
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| In popular culture: [http://www.newyorker.com/magazine/2015/09/14/high-score](http://www.newyorker.com/magazine/2015/09/14/high-score)  
Sebastian Deterding talk at Google “Meaningful Play: Getting Gamification Right”  
https://www.youtube.com/watch?v=7ZGPap7GkY |
| Gamification to improve our world: Yu-kai Chou at TedX  
https://www.youtube.com/watch?v=v5Qjuegtiyc |
| The Future of Creativity & Innovation is Gamification: Gabe Zichermann TED talk  
https://www.youtube.com/watch?v=ZZyRw71Slew |
| Game Blog 4 |
Extra Credits video on gamifying school:  
https://www.youtube.com/watch?v=MuDLw1zIc94

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<tbody>
<tr>
<td>9</td>
<td>July 3-8</td>
<td>Making Games for Learning</td>
<td>Blog 5 (Final One)</td>
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</table>
And one of the following:  
Games Research Association (DiGRA) (pp. 369-376). Tokyo, Japan: The University of Tokyo.

Or


<p>| 10 July 10-15 | Games and Schools OR Games and Training | Schools: Read the Introduction to Teachers as Pioneers (2016) and read 1 chapter that interest you. Have a conversation about them and record it via Zoom. Skim: Klopfer, Osterweil, Salen (2009). Moving Learning Games Forward. Training: Read the introduction and skim chapter 1 of Serious Games: Games that Educate, Train, and Inform. Then read an additional chapter that interests you (Chapters 2-9). Watch James Gee: <a href="https://www.youtube.com/watch?v=Zq6h5_NUPB0">https://www.youtube.com/watch?v=Zq6h5_NUPB0</a> &amp;feature=youtu.be | Play labyrin th and Prodig y |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Activity/Location</th>
<th>Speaker/Reference</th>
<th>Resource LINK</th>
</tr>
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<tbody>
<tr>
<td></td>
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<td>Quest to Learn: Web: <a href="http://www.q2l.org">http://www.q2l.org</a> Video: <a href="https://www.youtube.com/watch?v=jqMiNDyxmPk">https://www.youtube.com/watch?v=jqMiNDyxmPk</a></td>
</tr>
</tbody>
</table>
Online Video Games, Paris, France (pp. 83-88).

Recommended readings on Gamer Gate:
- Massanari (2015)
- Mortensen (2016)

In the Media: Rolling Stone Article:

New Yorker:

Anita Sarkeesian’s organization:
[https://feministfrequency.com](https://feministfrequency.com)

Anita Sarkeesian’s Talk:
[https://www.youtube.com/watch?v=ah8mhD6W6Shs](https://www.youtube.com/watch?v=ah8mhD6W6Shs)

|    |         |                     | Play Radix |
|---------------------------------------------------------------|
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>
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<tr>
<td>B+</td>
<td>87 – 89.9%</td>
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<tr>
<td>B</td>
<td>83 – 86.9%</td>
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<tr>
<td>B-</td>
<td>80 – 82.9%</td>
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<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>
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<tr>
<td>D-</td>
<td>60 – 62.9%</td>
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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 previous 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.