

Going Gameful:

Level up your learner's motivation

As everyone is getting settled in, please take a minute to jot down your own definitions for each of these words

Game and **School**

Dr. Rachel Niemer and Dr. Evan Straub
@rkniemer and @estraub
#gogameful

Kudos

All of our Instructors!

Barry Fishman

Caitlin Holman

Ben Plummer

Jon Yu

Kyle Dove

Sophia Zhou

Holly Derry

Camille Ulrich

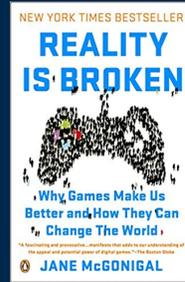
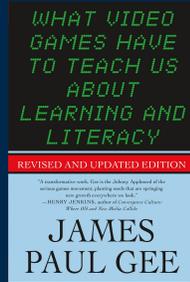
Mika LaVaque-Manty

James DeVaney

Liz Keren-Kolb

U-M ITS

We stand on the shoulders...



... Among others!

Activity: Building a Common Vocabulary

With the people sitting near you, briefly compare your definitions of ***Game*** and ***School***

Building a Common Vocabulary

Game

Salen, K., & Zimmerman, E. (2010). *Rules of play: game design fundamentals*.

Building a Common Vocabulary

School

Is this analogy even useful?
Why are there so many
conversations about games
and learning?

Gameful Learning

sits at the intersection of three scholarly fields
aiming to re-design school to make it a more
engaging game





Building a Common Vocabulary

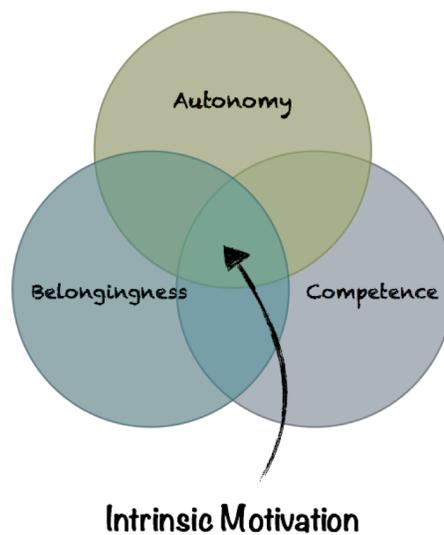
Intrinsic Motivation

... is defined as the doing of an activity for its inherent satisfactions rather than for some separable consequence

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology, 25*(1), 54-67. doi:10.1006/ceps.1999.1020

Ideally, students would be intrinsically motivated to engage in the hard work of learning.

Self-Determination Theory:

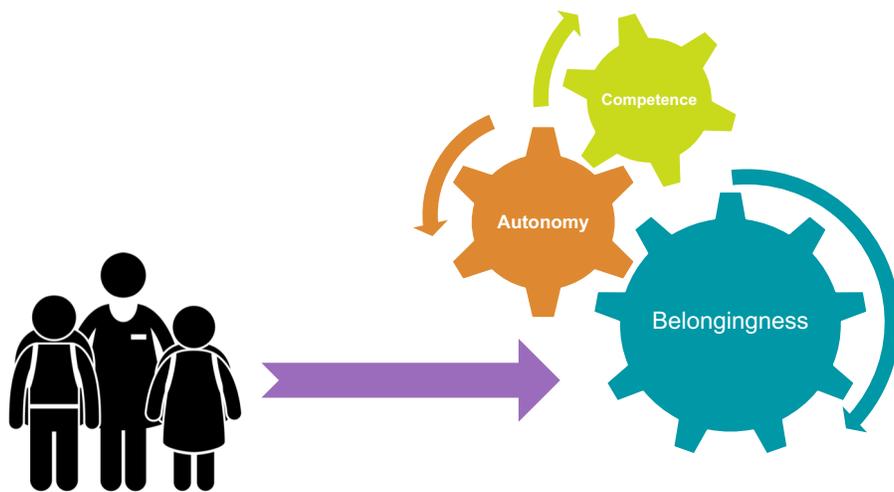


The Belongingness Hypothesis

...is that human beings have a pervasive drive to form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships.

Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497-529. doi:10.1037//0033-2909.117.3.497

Belongingness and Motivation: Key Contributors



Created by Gan Khoo Lay
from Noun Project

Belongingness and Motivation: Key Contributors

The quality of the relationship that teachers develop with their students has the most direct affect on students' sense of belonging in the classroom and their subsequent engagement; but, additionally, addressing student needs for competence and autonomy also reinforces and enhances students' sense of belonging. **The reality is that students interpret good teaching as caring behavior.** To the extent that teachers establish a positive relationship with students, utilize instructional strategies that enable students to learn, and empower them as learners within the classroom, students feel cared for – and they are more likely to be engaged in learning.

- Osterman K.F. (2010)

Gameful Learning

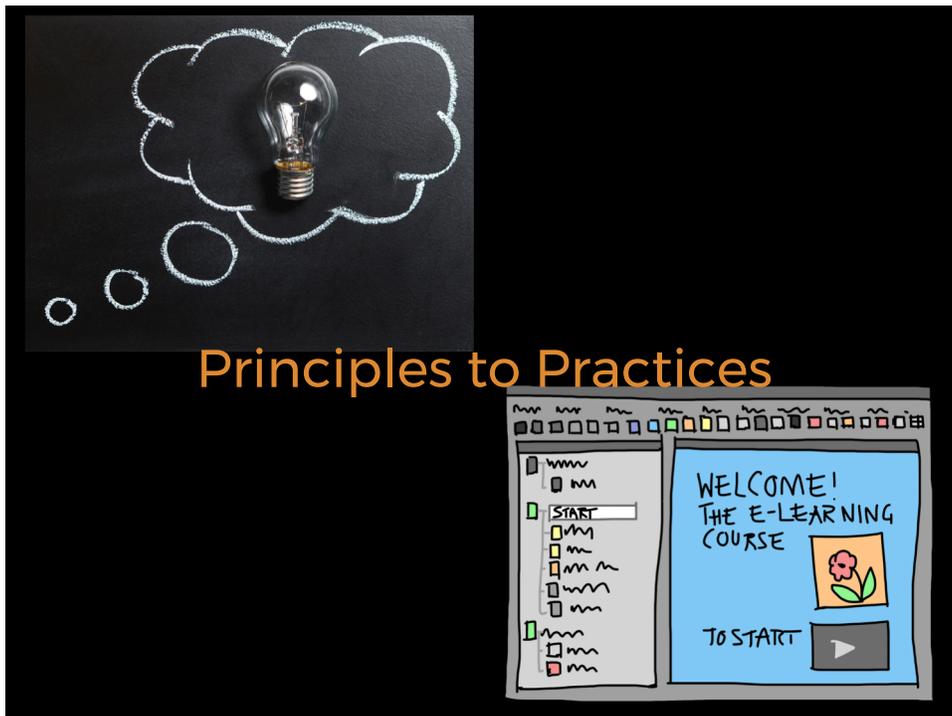
sits at the intersection of three scholarly fields aiming to re-design school to make it a more engaging game



What principles do game designers use when creating highly engaging games?

and

What can school look like if we apply these same design principles?

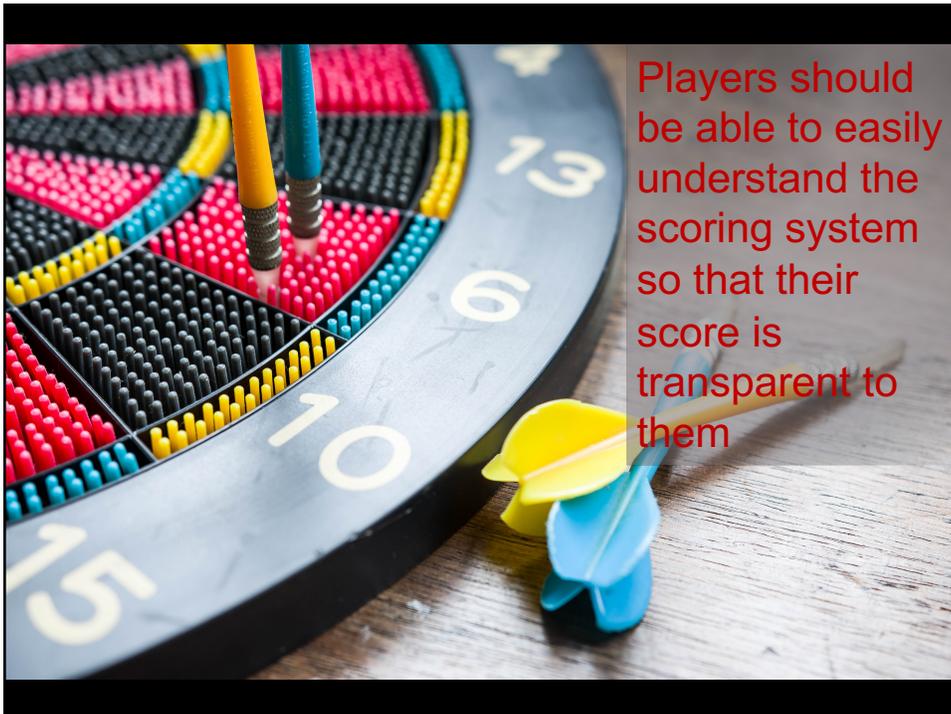


Players should be able to trust that...



...their actions are helping them make progress to meeting the objectives of the game

...the rules of the game give them an equal chance at success relative to other players



Players should be able to easily understand the scoring system so that their score is transparent to them

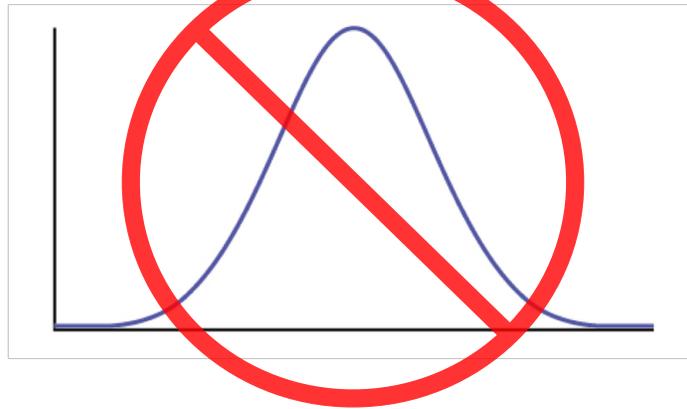
When you “flip the frame” learner grades build up from zero

Example Grading Scheme from “What Is Cancer?”

“What is Cancer?” is an interdisciplinary course offered by Alex Stern (American Culture) and Laura Olsen (Molecular, Cellular & Developmental Biology) at University of Michigan

Grade	Level	Point Threshold
A	Level 13 — Brian Duker	15,001
A-	Level 12 — Mary Claire King	14,001
B+	Level 11 — Peter Nowell	13,001
B	Level 10 — Audre Lorde	10,001
B-	Level 9 — Bernard Fisher	9,001
C+	Level 8 — Austin Bradford Hill	8,001
C	Level 7 — Sidney Farber	5,001
C-	Level 6 — Peyton Rous	4,001
D+	Level 5 — Katsusaburo Yamagiwa	3,001
D	Level 4 — Janet Lane-Claypon	2,001
D-	Level 3 — John Hunter	1,001
E	Level 2 — Galen	500
F	Level 1 — Hippocrates	0

A transparent grading system doesn't pit students against one another with grading curves



Players should be able to make mistakes, learn from those mistakes, i.e. productively fail, and have multiple opportunities to practice new skills.

Players
should
experience
tests of skill
as integral
to the
playing
experience

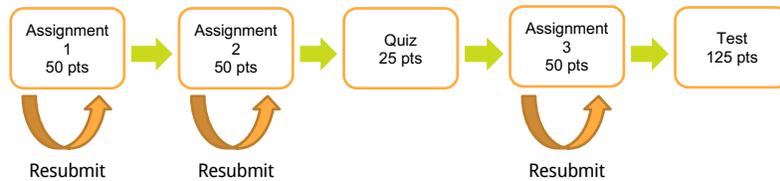


A mastery oriented course design blurs the lines between formative and summative assessments.

Traditional Course Design



Total Points for A:	270
Total Points Available:	300

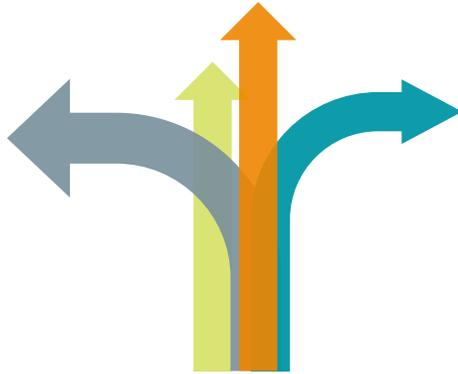


Mastery Oriented Design

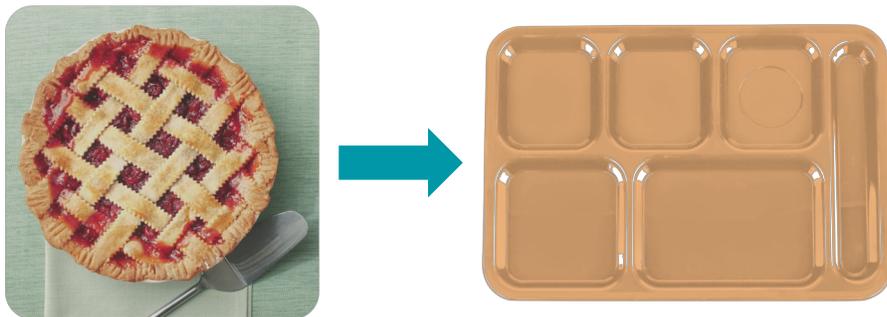
From our faculty:

“I want you to try something ‘cause you’re curious, and it doesn’t work out, and that doesn’t mean you’re gonna go down burning in flames. It means that you turn around and try the next thing. You learn something about it. That flexibility seemed really attractive to me.”

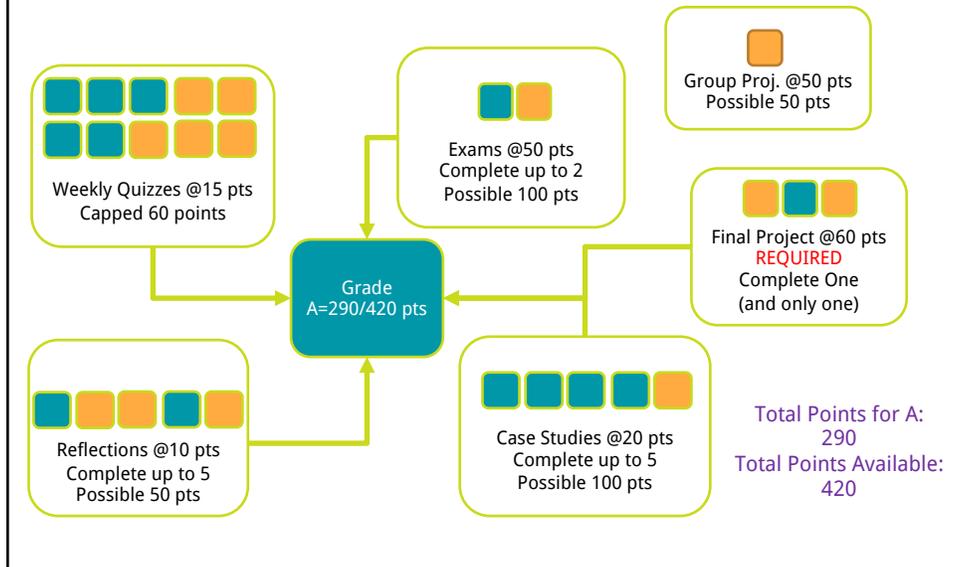
Players should have autonomy as to how they work toward meeting game objectives and have opportunities to explore different pathways to success



Let's Move from Pies to Cafeteria Trays



Linear models are not the only way to structure your assessments.

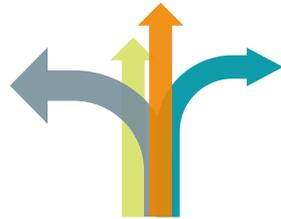


From our faculty:

“I wanted to give them other ways that they could demonstrate their knowledge and mastery besides the exam... I just was frustrated by what the exam means... They perform beautifully on the exam, and then I suspect they dump that knowledge almost immediately. What’s the point of that?”

Want to understand autonomy better?

Hands-on Gameful Design: Creating Autonomy



Tomorrow in Oceanic 3

1:30-2:15 PM



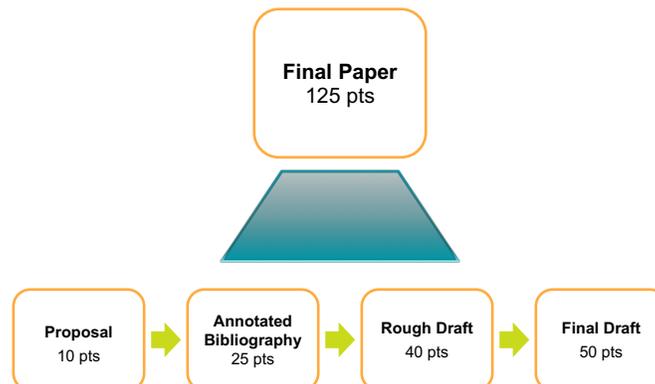
Players should experience increasing levels of challenge to give them a sense of competence in the game environment

How do we develop competence?

Traditional Course Design



Scaffolding large assignments helps learners develop a sense of competence



From our faculty:

"It's not just the software or whatever it's called that let me completely rethink the ways I teach and how much more responsibility I could turn over to my students, how many more ways we could collaborate and create community – that may be the biggest surprise... For me, [this system] provides so many more entry points into the teaching-learning collaboration for students. Plus motivation and access. You are fundamentally changing what's possible in classrooms."

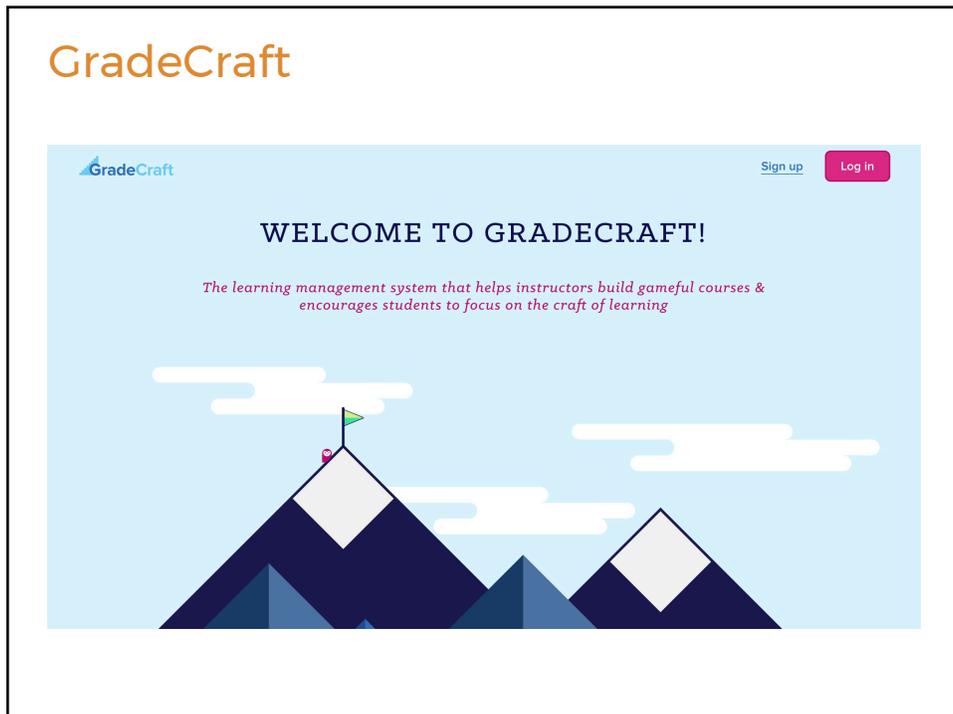
This sounds....

Intriguing....

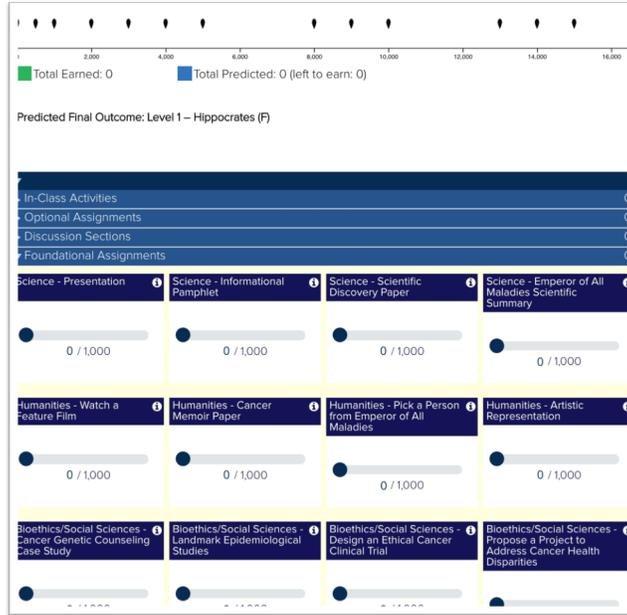
But maybe hard.

And I don't have time for hard.

Although do-able, these designs are HARD to implement in a traditional LMS



GradeCraft



How do we know
this helps?

From our students:

“What other classes are using
GradeCraft?”

Session Evaluations & Drawing



👍 Evaluate Session

- Download and open OLC Conferences mobile app
- Navigate to specific session to evaluate
- Select “Evaluate Session” on session details screen (located under session type and track)
- Complete session evaluation*

*Each session evaluation completed (limited to one per session) = one contest entry
Five (5) \$25 gift cards will be awarded to five (5) individuals
 Must submit evals using the OLC Conferences mobile app or website

Bring on the questions!

- School is a game, but a poorly designed one
- Well designed games are engaging, and they are excellent learning environments
- Game designers use a set of principles to guide their design & development
- Those principles align with what we know about intrinsic motivation
- Often the technology we use makes applying these methods to learning environments difficult

Hands-on Gameful Design: Creating Autonomy

Tomorrow in Oceanic 3

1:30-2:15 PM

evanstr@umich.edu & rkniemer@umich.edu

[@estraub](#) & [@rkniemer](#)

Additional Resources

www.gradecraft.com

www.gamefulpedagogy.com

www.edx.org

Additional Resources

[Courses](#) ▾ [Programs & Degrees](#) ▾ [Schools & Partners](#) [About](#) ▾

Q

[Sign In](#) [Register](#)

Home > All Subjects > Education & Teacher Training > Leading Change: Go Beyond Gamification with Gameful Learning

Leading Change: Go Beyond Gamification with Gameful Learning

Learn the tools to support gameful learning environments that foster personalized, engaged learning in schools.

UNIVERSITY OF MICHIGAN
 Microsoft

Self-Paced

Enroll Now

I would like to receive email from The University of Michigan & Microsoft in Education and learn about other offerings related to Leading Change: Go Beyond Gamification with Gameful Learning.

About this course

"Leading Change: Go Beyond Gamification with Gameful Learning" instructs school leaders and teachers on tools and strategies to support gameful learning in schools.

Developed in partnership with Microsoft, this education course aims to transform teaching and learning at all levels through explorations of how the features that make video games great learning environments can be used in formal learning environments to increase learner engagement on a local, regional and global scale. By creating classroom learning environments that support learners' senses of autonomy, competence and relatedness, school leaders are able to promote actively engaged and resilient learning.

Gameful learning is a new way to conceive curriculum and assessment that provides concrete support

- 🕒 Length: 8 weeks
- 🕒 Effort: 2 to 3 hours per week
- 💰 Price: FREE
Add a Verified Certificate for \$49 USD
- 🏛️ Institutions: MichiganX Microsoft in Education
- 📖 Subject: Education & Teacher Training