



## Social Games for the Classroom

Robert O. Duncan, PhD

Assistant Professor of Behavioral Sciences

WEB: [transformativegames.org](http://transformativegames.org)

EMAIL: [rduncan@york.cuny.edu](mailto:rduncan@york.cuny.edu)



# The Social Games Guarantee\*

- Improved learning through practice
- Improved learning by applying knowledge to novel situations
- Improved social bonding and social support
- Improved learning through associations with motor memory
  - The brain remembers procedures and events better than facts
- Improved cooperation, brainstorming, and leadership skills
- And much, much more!!

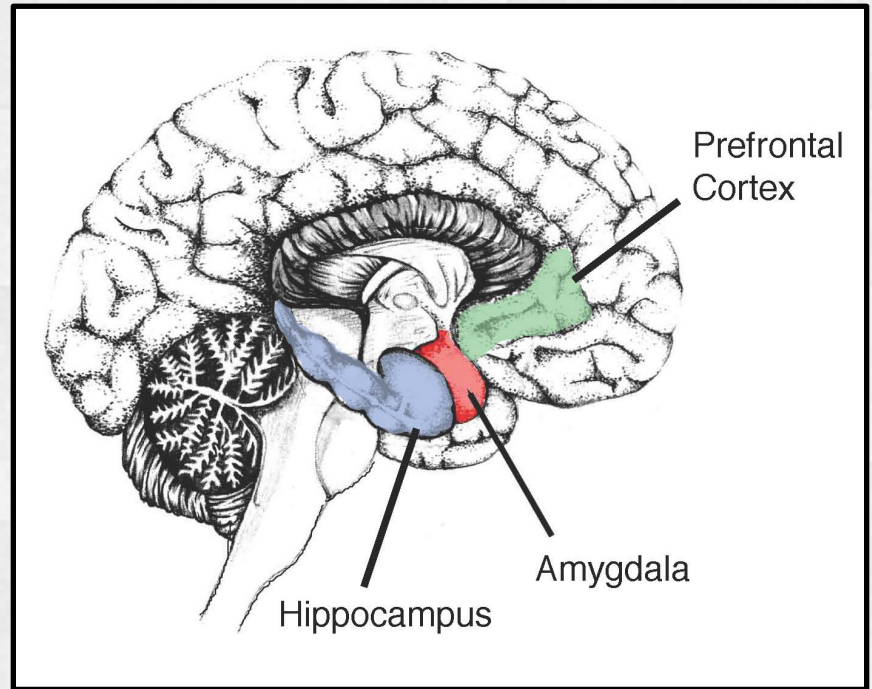


\*Offer limited while supplies last. Functionally fixed need not apply.



# Games = Learning

- Your brain is constantly bombarded with more information than it can process.
- The brain must decide what is important enough to remember
- The hippocampus converts relevant experiences into memories
- The amygdala determines which experiences are worthy of remembering
- pFC predicts the future.
- Art, games, music, learning and LIFE are fun when novel experiences pleasantly violate our expectations, which makes them worthy of being remembered.







# Play Defined

- Play is often the practice of survival skills
- A species that plays is more fit for survival
- The importance of play has been deemphasized
- Play is practice, not mastery
- Play must be fun to be attractive. But what is “fun?”
- Many types of fun
  - *Nachas* is joy in the success of a mentee
  - *Schadenfreude* is joy in another’s misery
  - *Fiero* is triumph over struggle.





# Games Defined

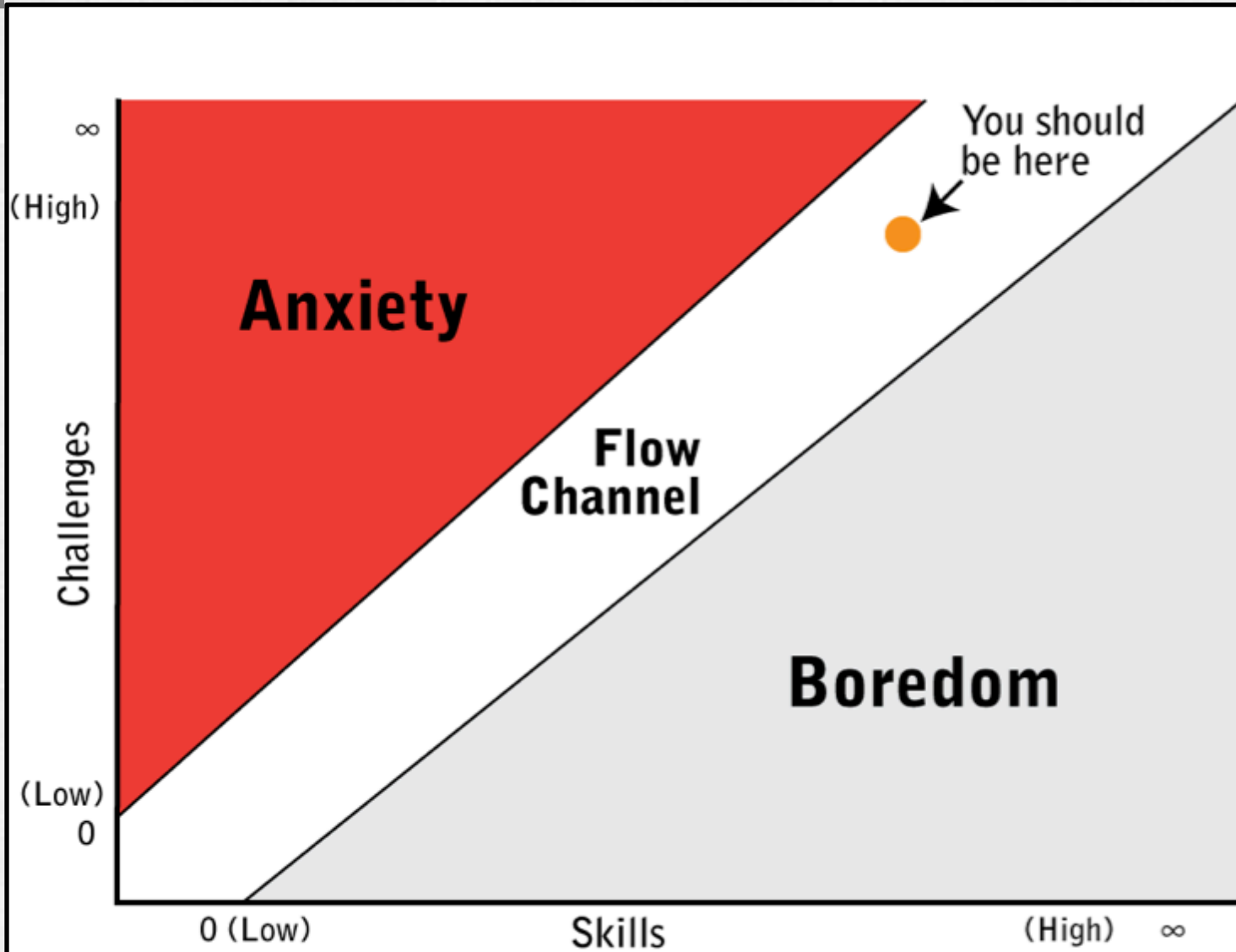
- “A good game teaches everything it has to offer before the player stops playing.”

– Raph Koster

- Why do we stop playing?
  - Boredom
  - Frustration
- Good games keep the player-learner in a state of **flow**, where time slips away unnoticed



# Flow

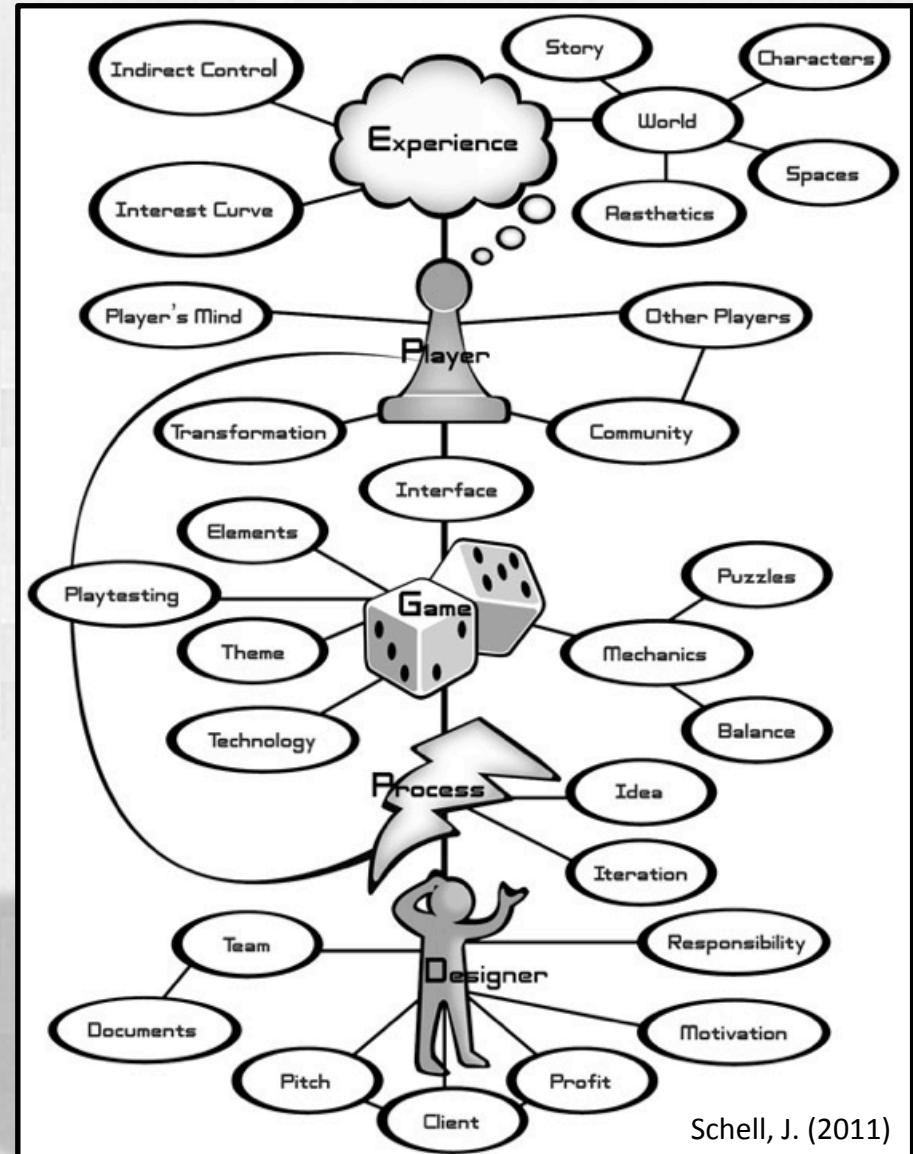




# Game Mechanics

- Educational objective
- Game objective
  - Win/lose states
- Resources
- Feedback
- Flow
- Boundaries

**\*\*The core game mechanic must be wedded to the educational objective.**



Schell, J. (2011)





# Case Study: Moot Court

- Educational objective: Learn to argue within the rules of jurisprudence.
- Game objective: Provide a valid legal argument for the defendant/ plaintiff
  - *Win state*: Win the trial
  - *Lose state*: Loose the trial
- Resources: Players can take turns to compete for a round. Each round, the jury votes on a winner for that round.
- Feedback: Teacher acts as judge to provide feedback.
- Flow: Players might be allow a certain number of trips to the textbook or get legal consult from the class.
- Boundaries: Must stay within the actual laws.







# Case Study: Nursing school

- Educational objective: Learn to triage
- Game objective: Sort quickly through case studies to prevent backup in the ward
  - *Win/Lose state*: Like Tetris, there is NO WIN STATE!!! You learn by failing.
- Resources: Half the class feigns an illness according to classic case studies. The other half must correctly label the pathologies within a time frame. Players collect cards for correctly sorted pathologies.
- Feedback: Provided by the number of cards (i.e., patients properly sorted)
- Flow: The amount of time for triage decreases for each case by 1 minute.
- Boundaries: TIME!





$R_x$

- Don't incorporate online games into the classroom unless you find the perfect game
  - However, social media **can** be part of the game (e.g., mystery puzzle hunt)
- Build social games within the classroom using **simple** tools.
- Social games are best used to reinforce practice or to occasion a teachable moment
  - E.g., moot court, role play, case studies
- **Important**: Students can further their understanding by **designing** games.



# What to Avoid

- “Gamification” - Placing unnecessary emphasis on secondary reinforcers.
  - Don’t award actual grade points for participation. This act devalues the primary reinforcer, which is the joy in accomplishing the difficult task.
- Complications
  - Keep it simple and loosely constrained. The more opportunities players have to invent, the more fun they will have.
  - Let them *construct*







# Resources

- [Transformativegames.org](http://Transformativegames.org)
  - Provide opportunities for game-base learning
  - Involve students in the process of design
  - Provide instructors with tools to implement games
  - Facilitate research in games-based pedagogy
- [CUNY Games Network @academic commons](#)
- [Gamesforchange.org](http://Gamesforchange.org)
- “Game Design Workshop” by Tracy Fullerton
- “The Art of Game Design” by Jesse Schell
- “How Computer Games Help Children Learn” by David Williamson Shaffer
- “A Theory of Fun for Game Design” by Raph Koster
- “What Video Games Have to Teach Us About Learning and Literacy” by James Paul Gee