TODAY

• Definition of **Game-based learning**
• When is **learning a game**?
• Benefits of **Game-based learning**
• Difference between **Game-based learning** and **gamification**
• Paper
  ▪ Authors
  ▪ Goal
  ▪ Study
  ▪ Results
• Questions
GAME-BASED LEARNING

- A type of game play that has defined learning outcomes.
- Designed to balance subject matter with gameplay and the ability of the player to retain, and apply said subject matter to the real world.
WHEN IS LEARNING A GAME?

- COMPETITION
- IMMEDIATE REWARDS
- ENGAGEMENT
WHEN IS A GAME EDUCATIONAL?

• Learning is made integral to scoring and winning.
• It is not enough to simply incorporate course material into a game.
• If it is possible to score and win without learning, students are likely to do so (Lepper and Cordova, 1992).
Benefits of Game-based learning

1. Make learning more fun
2. Encourages students to learn from their mistakes
3. Motivate students to learn outside the classroom
4. Immerse students in the material so they learn more effectively

Learning goal is achieved
• A different breed of learning experience.
• Gamification takes game elements (such as points, badges, leaderboards, competition, achievements) and applies them to a non-game setting.

<table>
<thead>
<tr>
<th>Game-based learning</th>
<th>Gamification</th>
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<td>the use of games to enhance the learning experience</td>
<td>the use of game design elements in non-game contexts</td>
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EVALUATING ADAPTIVE FEEDBACK IN AN EDUCATIONAL COMPUTER GAME
GOAL

To evaluate the impact of adaptive feedback on the effectiveness of a pedagogical agent for an educational computer game
HOW?

Compared a version of the game with no agent and two versions with agents

Hi! My name is Esteban Julio Ricardo Montoya De La Rosa Ramirez. And I am your pedagogical agent.
You cannot click on a number which shares common factors with your partner's number.
STUDY

No agent
No adaptive support

With agent
Original student model

With agent
New student model
RESULTS

• No significant difference between three conditions
• Not able to prove that having a pedagogical agent is better than not having one.
• More students in the new-model condition received a hint, but they tended not to read it, so the hint was not helpful to them.
• The agent in the old-model condition is rated as more helpful than the other agent
• Interruptions are annoying
THANKS FOR YOUR ATTENTION

PLEASE, IF YOU HAVE ANY QUESTION, ASK THE TEACHER