It depends

Season to taste
Double Dice

1. Decide whether you will “go double” OR stand pat
2. Answer the question
3. If you answer incorrectly, 0 points
   If you answer correctly, AND stand pat, you earn 5 points
   AND “went double,” roll the dice
   sum of the dice = points earned
   EXCEPT
   Doubles = 0 points
   Double 6s = Double your total score
   Double 1s = WIPEOUT your total score
1. Content

What type of content will you use?
Content – Material and Purpose

- Review games vs games to apply concepts or learn new material (ex. simulations)

Resources

- will you let them use their notes? Ask a friend?

Answer format

- multiple choice? (Who Wants to Be a Millionaire)
- open ended? (TV Jeopardy)
2. Fairness

How will you judge whether an answer is correct?
Fairness

- Discrete answers are easier to judge
- Good for recall of factual information,
  - but not as good for complex concepts, explanations, making and supporting arguments, etc.

- Partial credit is risky (in terms of fairness)
Fairness

- Who gets to answer?
  - Everyone?
  - Whoever raises hand/buzzes in first
    - (but can you be sure who was first?)
  - Orderly progression – what determines order?
    - Can increase downtime

- Consistent limit on time allowed to answer

- If they shout out more than one answer, or want to take back what someone says, which answer counts?
3. Game participation

How important is it to give everyone the chance to answer every question?
### Game Participation

Importance of everyone having the chance to answer every question

<table>
<thead>
<tr>
<th>Importance Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - low importance</td>
<td>9.9%</td>
</tr>
<tr>
<td>2</td>
<td>10.7%</td>
</tr>
<tr>
<td>3</td>
<td>27.5%</td>
</tr>
<tr>
<td>4</td>
<td>29.0%</td>
</tr>
<tr>
<td>5 - high importance</td>
<td>22.9%</td>
</tr>
</tbody>
</table>
4. Players

- Teams or individuals
- Team size
- Who chooses teams
- Number of teams
- Large class logistics
Would you rather play as an individual or on a team?

- Individual: 15.3%
- Team: 64.9%
- No preference: 18.8%
Why teams?

- Embarrassing if you (individual) don’t know the answer? - moreso than if the whole group doesn’t know it?

- Better chance of getting right answer – pool knowledge

- More fun to be with others, be social

- Less down time
What is the best size for a team?

- 1 (individual) 9.2%
- 2 13.0%
- 3 35.1%
- 4 34.4%
- 5 3.8%
- 6 or more 4.6%
Why that team size?

• Again, playing alone was not popular

• 3-4 people is easy to handle
  
  • Enough to pool resources

• Few enough people that everyone can have a say in each decision, can talk in secrecy
Who chooses the teams?

- Freely chosen by students: 22.9%
- Chosen by students with guidelines: 48.1%
- Randomly chosen: 19.1%
- Chosen by instructor: 8.4%
What is the ideal number of teams?

- 1 (no competition) 3.1%
- 2 1%
- 3 3.1%
- 4 34.4%
- 5 38.2%
- 6 or more 20.6%
Number of teams

- Chances of winning would be higher with only 2 teams, but at least 4 teams was most preferred

Do they like the competition?

- Is head-to-head with only 1 or 2 other teams not exciting enough?
Large class logistics

Ideal team size = 3-4
Ideal number of teams = 4-5, maybe 6+

What if classes are larger than that?
Large class options

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large teams</td>
<td>23.7%</td>
</tr>
<tr>
<td>Many teams</td>
<td>55.7%</td>
</tr>
<tr>
<td>Multiple sessions</td>
<td>3.1%</td>
</tr>
<tr>
<td>Rotate players</td>
<td>11.5%</td>
</tr>
<tr>
<td>Not all participate</td>
<td>4.6%</td>
</tr>
</tbody>
</table>
Large class options

- Most preferred - simply increasing team size or the number of teams
  -- but that is likely to increase down time (and noise)

- Further breakdown –
  - People who like to compete like to have many teams – more competition!
Write and Run

- Modified Jeopardy to suit a larger group

  1. One person from each team comes up front, finger on the board, receives a game sheet with questions
  2. At the signal, RUN (or just walk) back to their teams
  3. Teams can use notes, internet, etc. to find answers
  4. Run the sheet to me

  5. Round ends after 2 minutes or when someone has delivered a game sheet with all answers correct
  6. If there is a tie, the team that handed the sheet in first wins
5. Competition

Ideal level of competition
Competition vs cooperation
Ideal level of competition

None - prefer to play for fun (no score) or everyone wins 18.3%

Somewhat - there could be multiple winners 44.3%

High - should be a clear winner 37.4%
Would you rather compete against or cooperate with others?

<table>
<thead>
<tr>
<th>Option</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperate</td>
<td>38.2%</td>
</tr>
<tr>
<td>Compete</td>
<td>35.9%</td>
</tr>
<tr>
<td>No opinion</td>
<td>26.0%</td>
</tr>
</tbody>
</table>
6. Chance and skill

What is the ideal level of chance?
**Chance or Skill**

**Ideal level of chance**

- 0% - if you know all the answers, you are guaranteed to win 18.3%
- 25% - even if you know all the answers, you may not win 47.3%
- 50% - even mix of chance and skill 28.3%
- 75% - even if you did not know many answers, you may happen to know the answer to the question you received 1.5%
- 100% - complete chance 4.6%
Chance or skill

75% blend of chance and skill
- almost exactly the percentage determined by recent research on school games

50-50 - the blend that provides the most dopamine

See the work of Paul Howard-Jones
Scoring

- Can you lose points?

- Paul Howard-Jones says that negative points don’t provide the same shots of dopamine, but simply not earning points or losing the points you have already earned (WIPEOUT) is OK.
7. Noise Level

What is the ideal noise level during a game?
Preferred Noise Level

1 - None - no talking unless officially answering a question 6.9%

2 - Some - allowed to talk in whispers 32.8%

3 - Considerable - it's exciting 48.1%

4 - Football game rowdiness 12.2%
8. Prizes

How important are prizes?
Prizes

1 - low importance  13.0%
2                   4.6%
3                   11.5%
4                   20.6%
5 - high importance 50.4%
9. Rules

How strictly should rules be enforced?
Importance of Rules

rules should be...

General guidelines (not closely followed) 22.1%

Followed most of the time, with allowances 52.7%

Followed strictly 23.7%
Rules – ask students for help!

Duty Free

1. Teams draw a question from a bag
   (from the Oslo Airport Duty Free shop)

2. They choose which team will get the question,
   ask it, judge the answer.
   - increase participation, engagement, they have to
     debate strategy (who will get the question?)
Rules- ask for help!

Rules students helped develop

- Lose points for wrong answers – originally +/- 1 in round 1, +/-2 in round 2, but now using Double Dice for scoring (still can lose points, put how many points is determined by the dice)

- Stealing - if the question is answered incorrectly, the other teams can try to answer (risking points if they’re wrong) – can do this every time the opportunity arises

- Special plays (each team gets 1 per game)
  - Pass – don’t answer the question, but get to choose another team that will have to answer it
  - Bounce-back – don’t answer the question, but it goes back to the original questioning team, which can then ask another team
  - Shout out – 60 seconds to look at notes, internet, ask a friend, call a friend, ask a stranger…
Batter Up

- Game idea came from students, then we worked together to develop it

- Questions come from bag (like Duty Free) and have a base written on them
  - single, double, triple, home-run

- Base is earned IF question answered correctly

- Runners work their way around the bases

- Only runs count (not bases)

- Outs per inning (students decide)
10. Technology

Are games using technology better?
# Prefer Games with Technology

<table>
<thead>
<tr>
<th>Preference Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - not at all</td>
<td>8.4%</td>
</tr>
<tr>
<td>2</td>
<td>8.4%</td>
</tr>
<tr>
<td>3</td>
<td>23.7%</td>
</tr>
<tr>
<td>4</td>
<td>23.7%</td>
</tr>
<tr>
<td>5 - highest preference</td>
<td>34.4%</td>
</tr>
</tbody>
</table>
I LIKE It

- Current Events game – designed to allow more sharing in large classes

- STEP 1
  - Post current event link on blog site or ANGEL discussion board
  - Read articles on others’ links, LIKE the ones that are the most interesting or relevant (discuss-Why was that the best article? How was it relevant?)
  - **Token** awarded to
    - Person with the most LIKES
    - Random drawing between all participants (orange lottery ticket)
I LIKE It

• STEP 2
  • Article that received the most LIKES becomes the event of the week
  • Everyone reads that article and makes a comment
  • Others read the comments and LIKE the best ones
  • **Token** awarded to
    • Comment with the most LIKES (discuss- Why was it such a good comment? What makes a good comment?)
    • Random drawing between participants
      (orange lottery ticket)
I LIKE It

- For the future…

- Feasibility of leader board – will that be OK or will it violate privacy?

- "Kingmaker" – the person who most often LIKES the winning article or comment

- Stickers and badges
Entrepreneurship Summer Camp
Ideas? Experiences?

- I would be very interested to hear about your ideas and experiences

- skr12@psu.edu