GAME-BASED LEARNING IN THE CLASSROOM

Professor Alf Inge Wang
Co-founder/Inventor/Researcher Kahoot!
Norwegian University of Science and Technology
Visiting Researcher at ISR, UCI
Transform unengaged students...
...to listening and engaged students
Transforms passive students...
... to active in own learning
From one-way communication
...to two-ways interaction
Provide useful feedback to instructors
Provide useful feedback about what you have learned
Results in more positive attitude towards learning
Kahoot! is a basically BYOD gameshow in the classroom.
Q1 Who used the argument “I think, therefore I exist”? 

- Plato
- Descartes
- Leibniz
Research results: Wear-out effects

One-time event: Using Kahoot! in motivation lecture on 206 students. First time ever seen or used Kahoot!

VS.

One semester: Using Kahoot! through the spring semester on 45 students. Kahoot! was used normally several times a week!
I was engaged while playing Kahoot!

One-time event
- Agree: 96%
- Disagree: 3%
- Neutral: 1%

One semester
- Agree: 89%
- Disagree: 9%
- Neutral: 2%
I wish Kahoot! would be used in other classes.

One-time event:
- Agree: 85%
- Neutral: 12%
- Disagree: 3%

One semester:
- Agree: 83%
- Neutral: 13%
- Disagree: 4%
It was fun to play Kahoot!

One-time event
- Agree: 95%
- Neutral: 5%

One semester
- Agree: 89%
- Neutral: 9%
- Disagree: 2%
I learn from playing Kahoot!

One-time event

- Agree: 73%
- Neutral: 23%
- Disagree: 4%

One semester

- Agree: 76%
- Neutral: 22%
- Disagree: 2%
How often should Kahoot! be used in lectures?

- Every lecture: 57%
- Once a week: 37%
- Once a month: 4%
- Never: 2%
Research results: Paper vs SRS vs GSRS

Experiment:
Same lecture taught in 3 parallels:
1. Used paper form quiz to review
2. Used simple student-response system (SRS) to review
3. Used Game-based SRS to review
Paper forms
Clicker - Student-response system

a) Enter classroom
b) Choose choices
c) Collect votes
d) View results
“I did the quiz only because the teacher told me to”
“The quiz was boring and not engaging”
“I want to do better on the quiz than most other students”
"I felt increased pulse when answering the quiz"
Other results

• Mean learning improvement (post-test - pre-test):
  • Paper: 3.669
  • Kahoot!: 3.817

• Less variation for gender and whether students play video games for Kahoot!

• Most variation for gender and whether students play video games for paper quizzes.
Thanks!

- Email: alfw@idi.ntnu.no
- Web: http://www.idi.ntnu.no/~alfw
- Please try out Kahoot! and/or make your lecturer try out Kahoot!

getkahoot.com