

The wear out effect of
game-based student
response system

SRS - Student Response System

BYOD - Bring Your Own Device

GSRS - Game Based Student Response System

“Well-designed video games are learning machines”-J. P. Gee

Kahoot!

-GSRS

“... Kahoot! focuses 100% on engaging and motivating the students through a game experience where students compete.”

Tom Malone's three categories to make things fun to learn:

1. Utfordring

2. Fantasi

3. Nysgjerrighet

Forsvinner de positive effektene over tid?

Research Questions:

1. How is the classroom dynamics affected by short time vs. long time usage of a GSRS in the classroom?
2. How is the students engagement affected by short time vs. long time usage of a GSRS in the classroom?
3. How is the students motivation affected by short time vs. long time usage of a GSRS in the classroom?
4. How is the students perceived learning affected by short time vs. long time usage of a GSRS in the classroom?
5. Do the students want to continue to use GSRS in lecture after frequent use?

Spørreundersøkelse stilt til to grupper:

- 45 min motivasjons forelesing for spill basert læring, avsluttet med en kahoot
- Etter ett semester med bruk av kahoot i forelesinger i faget programvarearkitektur.
- RQ5- stilt bare til programvarearkitektur klassen.

STATEMENT	Group	Disagree	Neutral	Agree
It was easy to use a mobile device to play the game	Event	0%	6%	94%
	Semester	4%	9%	87%
I communicated with other players while playing	Event	14%	19%	67%
	Semester	28%	20%	52%
It was fun to compete against others	Event	0%	5%	95%
	Semester	9%	7%	85%
It was fun to play together in the same room	Event	0%	1%	99%
	Semester	0%	22%	78%
I concentrate more when playing against other students	Event	3%	8%	89%
	Semester	11%	17%	72%
I was engaged while playing	Event	1%	3%	95%
	Semester	2%	9%	89%
I was emotionally engaged while playing	Event	13%	35%	52%
	Semester	24%	24%	52%
It was fun to play the game	Event	0%	5%	95%
	Semester	2%	9%	89%
I wish Kahoot! was used in other lectures	Event	3%	12%	85%
	Semester	4%	13%	83%
I am more positive towards topic after playing the game	Event	2%	33%	64%
	Semester	9%	35%	57%
I learned something from playing the game	Event	4%	22%	74%
	Semester	2%	22%	76%

RQ1:

How is the classroom dynamics affected by short time vs. long time usage of a GSRS in the classrom?

STATEMENT	Group	Disagree	Neutral	Agree
It was easy to use a mobile device to play the game	Event	0%	6%	94%
	Semester	4%	9%	87%
I communicated with other players while playing	Event	14%	19%	67%
	Semester	28%	20%	52%
It was fun to compete against others	Event	0%	5%	95%
	Semester	9%	7%	85%
It was fun to play together in the same room	Event	0%	1%	99%
	Semester	0%	22%	78%
I concentrate more when playing against other students	Event	3%	8%	89%
	Semester	11%	17%	72%
I was engaged while playing	Event	1%	3%	95%
	Semester	2%	9%	89%
I was emotionally engaged while playing	Event	13%	35%	52%
	Semester	24%	24%	52%
It was fun to play the game	Event	0%	5%	95%
	Semester	2%	9%	89%
I wish Kahoot! was used in other lectures	Event	3%	12%	85%
	Semester	4%	13%	83%
I am more positive towards topic after playing the game	Event	2%	33%	64%
	Semester	9%	35%	57%
I learned something from playing the game	Event	4%	22%	74%
	Semester	2%	22%	76%

RQ2:

How is the students engagement affected by short time vs. long time usage of a GSRS in the classrom?

STATEMENT	Group	Disagree	Neutral	Agree
It was easy to use a mobile device to play the game	Event	0%	6%	94%
	Semester	4%	9%	87%
I communicated with other players while playing	Event	14%	19%	67%
	Semester	28%	20%	52%
It was fun to compete against others	Event	0%	5%	95%
	Semester	9%	7%	85%
It was fun to play together in the same room	Event	0%	1%	99%
	Semester	0%	22%	78%
I concentrate more when playing against other students	Event	3%	8%	89%
	Semester	11%	17%	72%
I was engaged while playing	Event	1%	3%	95%
	Semester	2%	9%	89%
I was emotionally engaged while playing	Event	13%	35%	52%
	Semester	24%	24%	52%
It was fun to play the game	Event	0%	5%	95%
	Semester	2%	9%	89%
I wish Kahoot! was used in other lectures	Event	3%	12%	85%
	Semester	4%	13%	83%
I am more positive towards topic after playing the game	Event	2%	33%	64%
	Semester	9%	35%	57%
I learned something from playing the game	Event	4%	22%	74%
	Semester	2%	22%	76%

RQ3:

How is the students motivation affected by short time vs. long time usage of a GSRS in the classrom?

STATEMENT	Group	Disagree	Neutral	Agree
It was easy to use a mobile device to play the game	Event	0%	6%	94%
	Semester	4%	9%	87%
I communicated with other players while playing	Event	14%	19%	67%
	Semester	28%	20%	52%
It was fun to compete against others	Event	0%	5%	95%
	Semester	9%	7%	85%
It was fun to play together in the same room	Event	0%	1%	99%
	Semester	0%	22%	78%
I concentrate more when playing against other students	Event	3%	8%	89%
	Semester	11%	17%	72%
I was engaged while playing	Event	1%	3%	95%
	Semester	2%	9%	89%
I was emotionally engaged while playing	Event	13%	35%	52%
	Semester	24%	24%	52%
It was fun to play the game	Event	0%	5%	95%
	Semester	2%	9%	89%
I wish Kahoot! was used in other lectures	Event	3%	12%	85%
	Semester	4%	13%	83%
I am more positive towards topic after playing the game	Event	2%	33%	64%
	Semester	9%	35%	57%
I learned something from playing the game	Event	4%	22%	74%
	Semester	2%	22%	76%

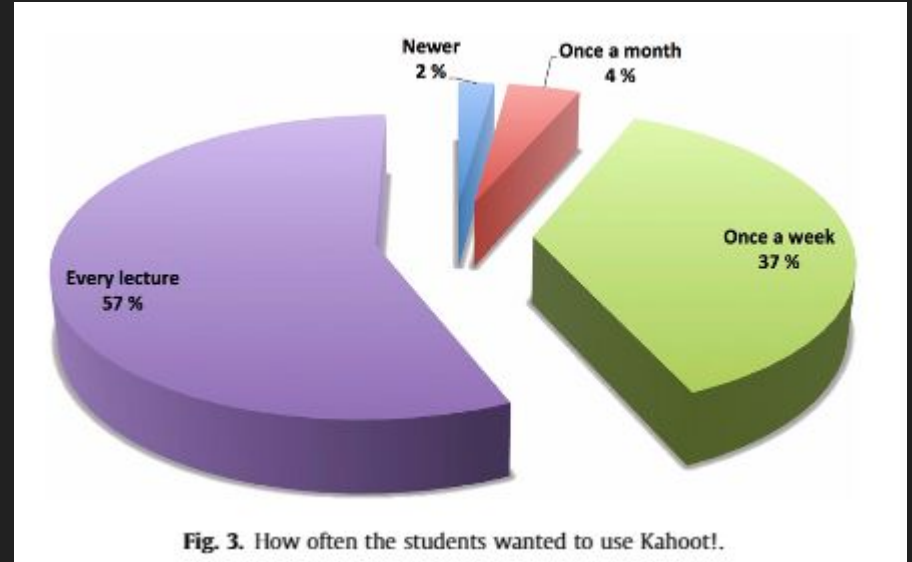
RQ4:

How is the students perceived learning affected by short time vs. long time usage of a GSRS in the classroom?

STATEMENT	Group	Disagree	Neutral	Agree
It was easy to use a mobile device to play the game	Event	0%	6%	94%
	Semester	4%	9%	87%
I communicated with other players while playing	Event	14%	19%	67%
	Semester	28%	20%	52%
It was fun to compete against others	Event	0%	5%	95%
	Semester	9%	7%	85%
It was fun to play together in the same room	Event	0%	1%	99%
	Semester	0%	22%	78%
I concentrate more when playing against other students	Event	3%	8%	89%
	Semester	11%	17%	72%
I was engaged while playing	Event	1%	3%	95%
	Semester	2%	9%	89%
I was emotionally engaged while playing	Event	13%	35%	52%
	Semester	24%	24%	52%
It was fun to play the game	Event	0%	5%	95%
	Semester	2%	9%	89%
I wish Kahoot! was used in other lectures	Event	3%	12%	85%
	Semester	4%	13%	83%
I am more positive towards topic after playing the game	Event	2%	33%	64%
	Semester	9%	35%	57%
I learned something from playing the game	Event	4%	22%	74%
	Semester	2%	22%	76%

RQ5:

Do the students want to continue to use GSRS in lecture after frequent use?



Konklusjon

- Ikke noe stort tap av effekt ved hyppig bruk over en lengre periode sammenlignet med bruk en gang.
- Bedre enn alternativene.
- Større variasjon av spillmodus kan hjelpe å forebygge tap av effekt uten å miste engasjement og motivasjon.