



UiO : University of Oslo

Clickers: A tool for improving pedagogics and assessment in academic libraries.

**Personal response system in the classroom:
Fun or learning – or both?**

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Join the class!

- Switch the clicker on
- When the text "scanning classes" is shown on the display, press "B", then "enter" (green arrow)



- Please, don't click until you get "go"

Have you used clickers before?

- 1. Yes, in my teaching / as presenter
- 2. Yes, as audience
- 3. No



Can you guess our main purpose for purchasing clickers?

1. More fun library instructions
2. Use clickers to evaluate our courses
3. Enhance student activity and interaction
4. Use clickers to assess learning outcome
5. All of the above



Background/motivation



- Little student activity
- Single session courses discourage activity/interaction
- No good methods for assessing either students level of knowledge or learning outcome



... and now: clicking students...

Just fun – or learning????



Two pilot lessons

1. Clickers used to enhance student activity in larger groups
2. Clickers as assessment tool

Main focus: How to design clicker sessions and questions that support activity and assessment

Pilot lesson 1: Student activity

- Bachelor level library instruction course
- Approx. 100 biology students

Our focus:

- To improve interactivity and discussion/reflection in library instructions for larger groups.

Students' learning goals:

- Reflect upon ethical questions of plagiarism
- Become aware of the importance of correct quoting/referencing
- Become familiar with UiO's regulations concerning plagiarism/cheating and the consequences of cheating

.... How ?

Session design and progress:

1. Choose the right question types for various purposes
2. Teacher poses clicker questions
3. Reflection/discussion among students
4. Students respond by clicking
5. Immediate feedback on screen for students and teacher
6. Answer/explanation, clear up misconceptions - new understanding

Examples of questions...

**...about plagiarism and
quoting/referencing**



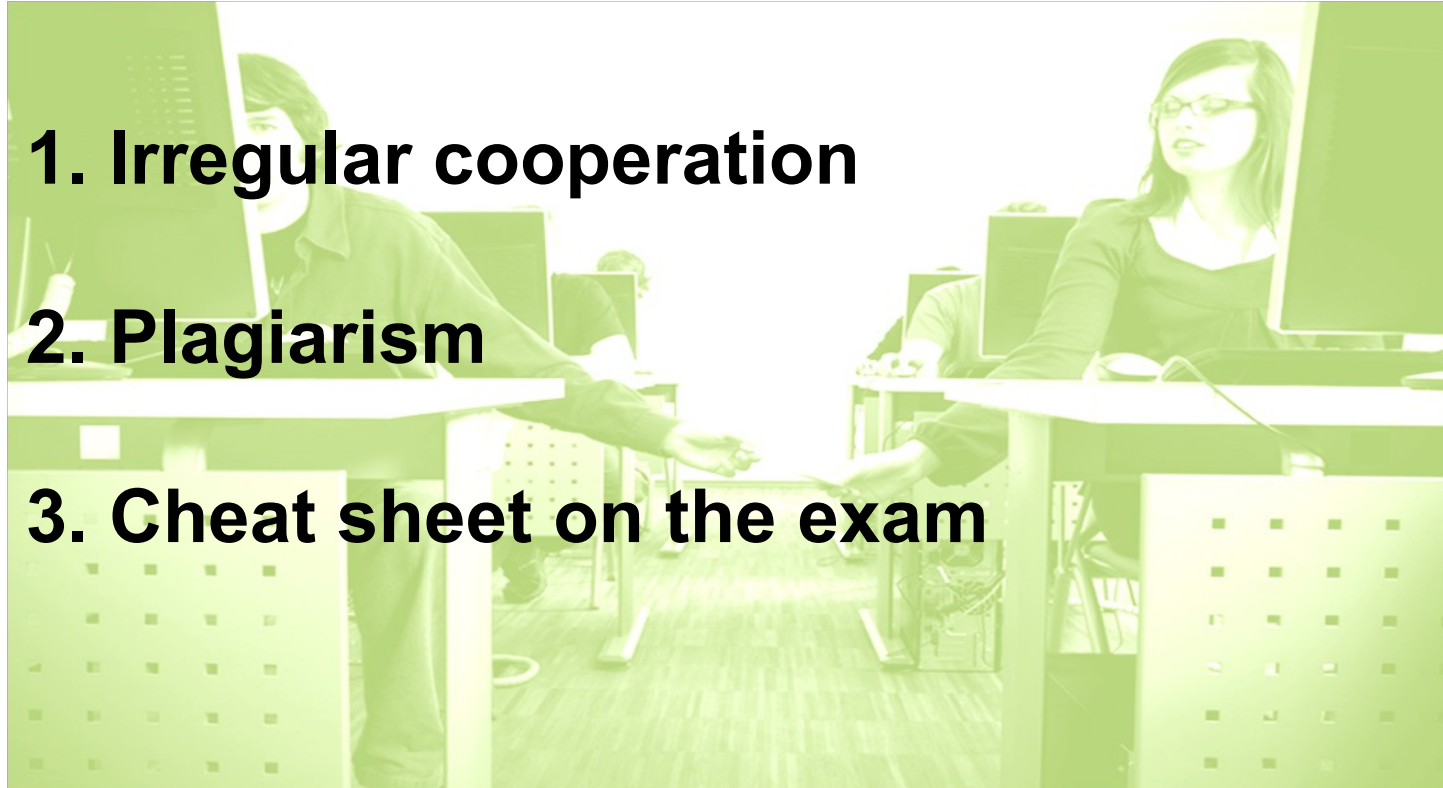
Example of question

What do you think is the most common reason for students to be suspected of cheating?

1. Irregular cooperation

2. Plagiarism

3. Cheat sheet on the exam



Example of question concerning the students' comprehension of plagiarism:

The following is a quote from an article by Inger Nordal:

In today's world , focus is on profit - to an extent that may set aside ethical considerations. The culture of greediness does not confide to business (i.e. Enron), but ethical principles are also endangered in the world of science. When profit is the sole goal, ethical principles for research can be undermined.

Nordal, I. (2002) Vitenskap mot profit. Aftenposten morgen 2. august 2002 (our translation)

The student Anne wrote the following in her assignment:

Inger Nordal is of the opinion that ethical principles in science are endangered. The culture of greediness is threatening science!

True (yes) or false (no):

- Is this an acceptable paraphrasing?

Example of question

Which of the following statements correspond best with your understanding of the term "plagiarism"?

1. Plagiarism is a word by word rendering of other people's work
1. Plagiarism is using other's results in my work
3. Plagiarism is putting my own name on other's work

Pilot lesson 1: Experiences

- Clickers enhance activity and interaction
- Students like it
- Motivating feedback for lecturer (and students?)
- Design right question types for different purposes (e.g. learning of facts/moral questions)
- Questions without only one correct answer may trigger discussion/reflection
- Clicker questions should be integrated in main lesson
- One clicker per student may add more variation, and the possibility to ask delicate/sensitive questions

Pilot lesson 2: Assessment

- Master level library instruction course
- 69 pharmacy students

Our focus:

- Assessing learning outcome with the aid of clickers.

Students' learning goals:

- Effective literature searching in relevant databases
- Understanding the principles of academic integrity
- Citing and referencing correctly

Examples of questions...



Where would you look/search to find the database Embase?

1. BIBSYS Ask
2. X-port
3. Google
4. Don't know

	Pre	Post
BIBSYS Ask	14	2
X-port	14	28
Google	2	0
Don't know	1	0

Which of these searches will return the most hits?

1. Cats AND dogs
2. Cats OR dogs
3. Cats NOT dogs

	Pre	Post
Cats AND dogs	15	1
Cats OR dogs	15	29
Cats NOT dogs	1	0

Pilot lesson 2: Experiences

- Students like it
- Pre-testing adjust the focus of the classes
- Groups must be identical pre- and post-test
- Immediate post-test may tell us of recall rather than learning outcome
- A new post-test after a time span may provide better assessment of learning outcome

Final question for you!

Clickers seem to be a good tool for activity and assessment in academic library courses – do you agree?

- 6 (Yes, most definitely!)
- 5
- 4
- 3
- 2
- 1 (Not at all!)



Conclusions

Fun!

- **Clickers = activity = learning?**
- **New technology still requires good pedagogics**

Thank You!

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