

Midterm report on flipped Phys 0110

Dr. Matteo Broccio

dB-SERC lunch, October 21, 2015

Progress metrics

- ***Online activity metrics***
- ***Student one-on-one feedback***
- ***Pre-instruction FCI scores***
- ***Exam 1 scores***

Workflow

Video Module released on Courseweb **this Tuesday night**

Checkpoints due on WebAssign **next Tuesday** 4:00 pm

Classwork **next Tuesday/Thursday** 6:00-7:20 pm

Homework due on WebAssign **next Saturday** 11:59 pm

Online activity metrics

Module 02 (One-dimensional kinematics), September 8

Watched theory videos *before* classwork: **92%**

Submitted Checkpoints: 77/81 (**95%**)

Watched **Sample Problems** *before* classwork : 49/81 (60%)

Watched Sample Problems before homework: 50/81 (62%)

[Exam 1, September 29]

Taken: 80/81 (99%)

Module 06 (Work and energy), October 6

Watched theory videos *before* classwork: **83%**

Submitted Checkpoints: 78/81 (**96%**)

Watched **Sample Problems** *before* classwork : 29/81 (36%)

Watched Sample Problems before homework: 32/81 (40%)

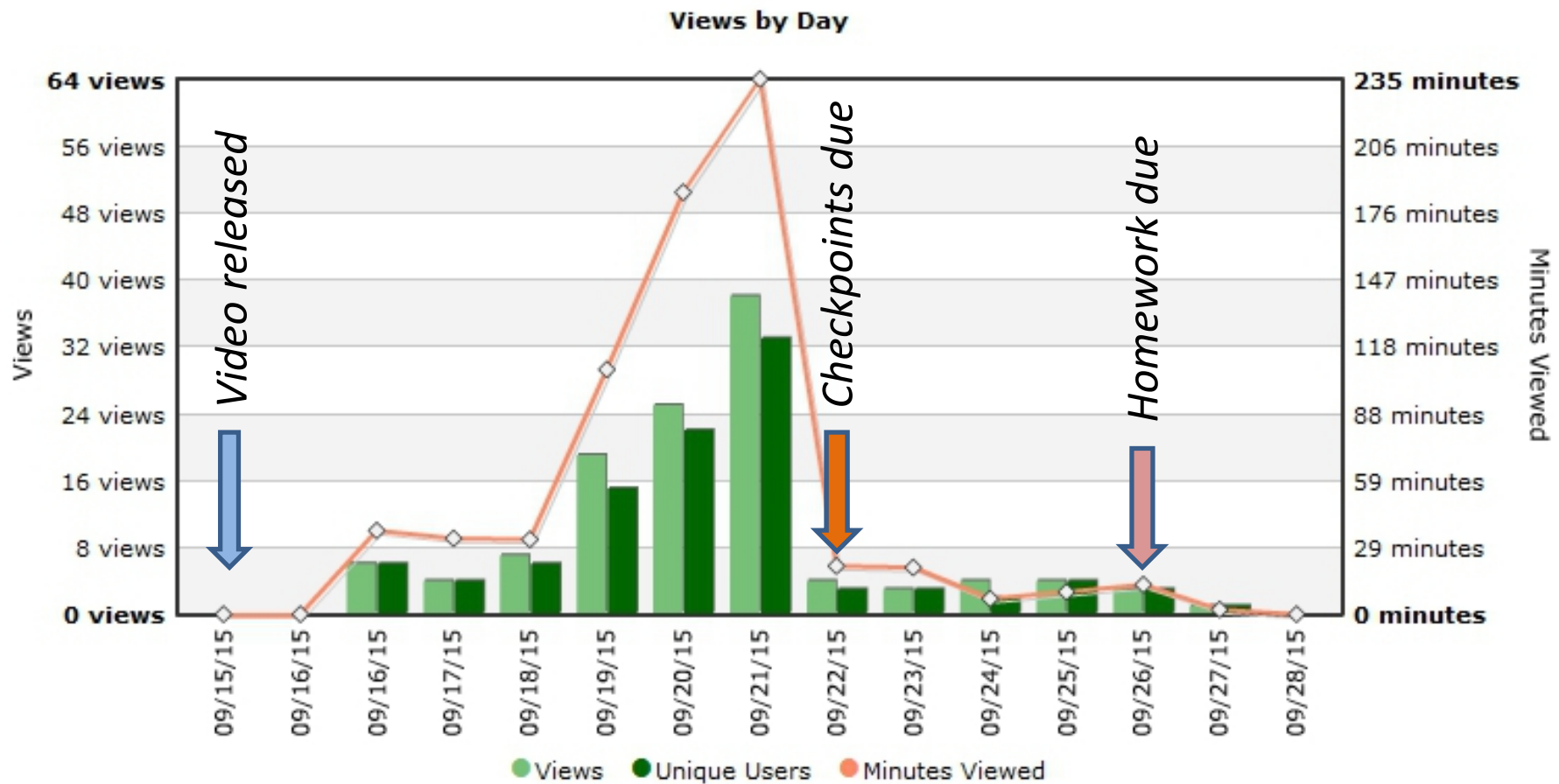
Panopto stats sample

Session stats: 3.2.a Motion of a projectile Part 1



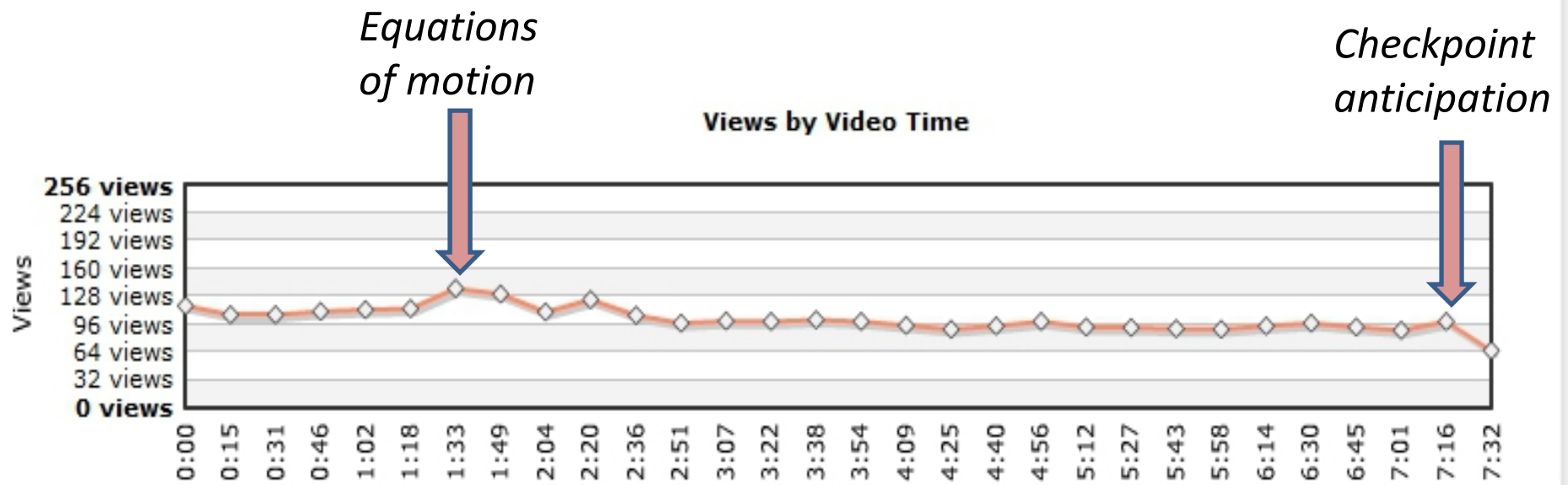
Minutes viewed data current as of: 9/28/2015 4:30:37 PM (Eastern Daylight Time)

[Download](#)



Panopto stats sample

(3.2.a Motion of a projectile Part 1)



Student feedback on online activities

“The **computer explorations** are the single most important thing that helps me really understand the concepts.” (2 counts)

“The assigned **homework problems** really helped my understanding. Until I did them, I was not actually sure I understood.” (2 counts)

“I love the flexibility, and especially **the fact that I need to come to class only once a week.**”

“90% of the **video checkpoints** directly tested what was covered in the video though 10% of the checkpoints seem not to *directly* do that.” (2 counts)

(Suggestion:) “I think you could *open* each video with a challenging question taken from real life to provide a strong motivation.”

“I am not saying it is your fault, but I do not get *anything* from the videos!”

Student feedback on classwork

“I like that you give a *series of problems* of increasing complexity.”

“In the beginning, you could ask us what was the most difficult concept for that module. (Also, you do not need to show us the answers back.)”

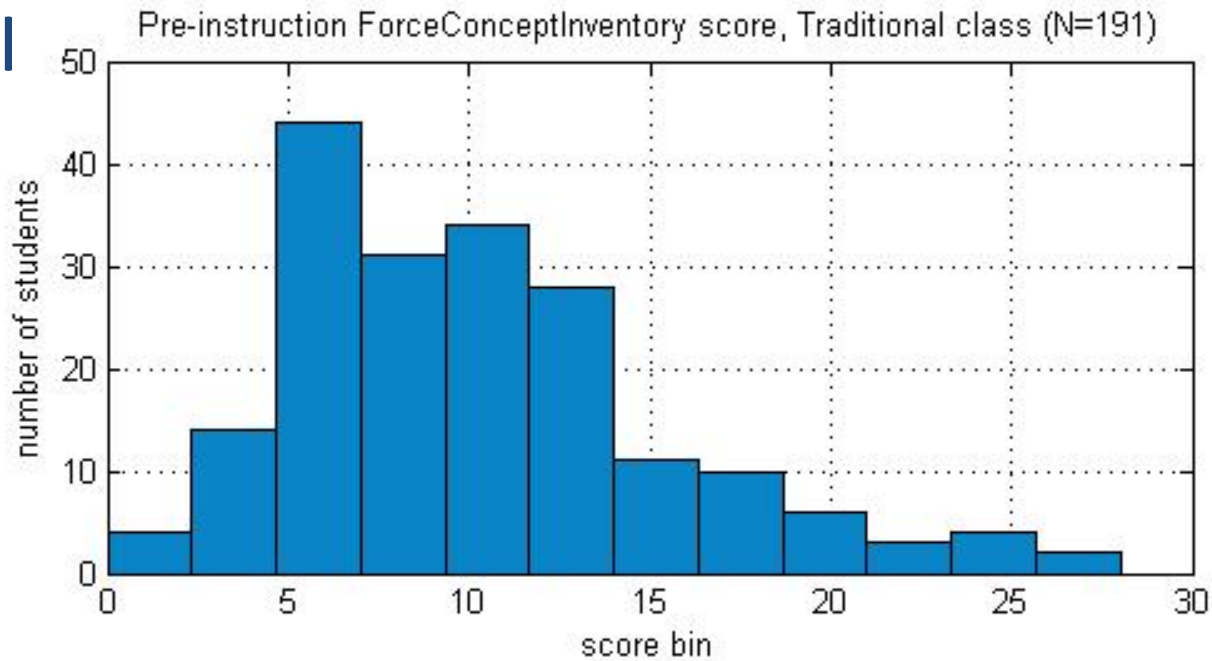
“You should try harder to combine *multiple concepts* together, because I expect that kind of thing to be on the Final Exam, which is 30% of my grade.”

“The **pace** of classwork is much slower than that of the videos.”

“The **demonstrations** should be totally eliminated, because they really do not improve my conceptual understanding at all.”

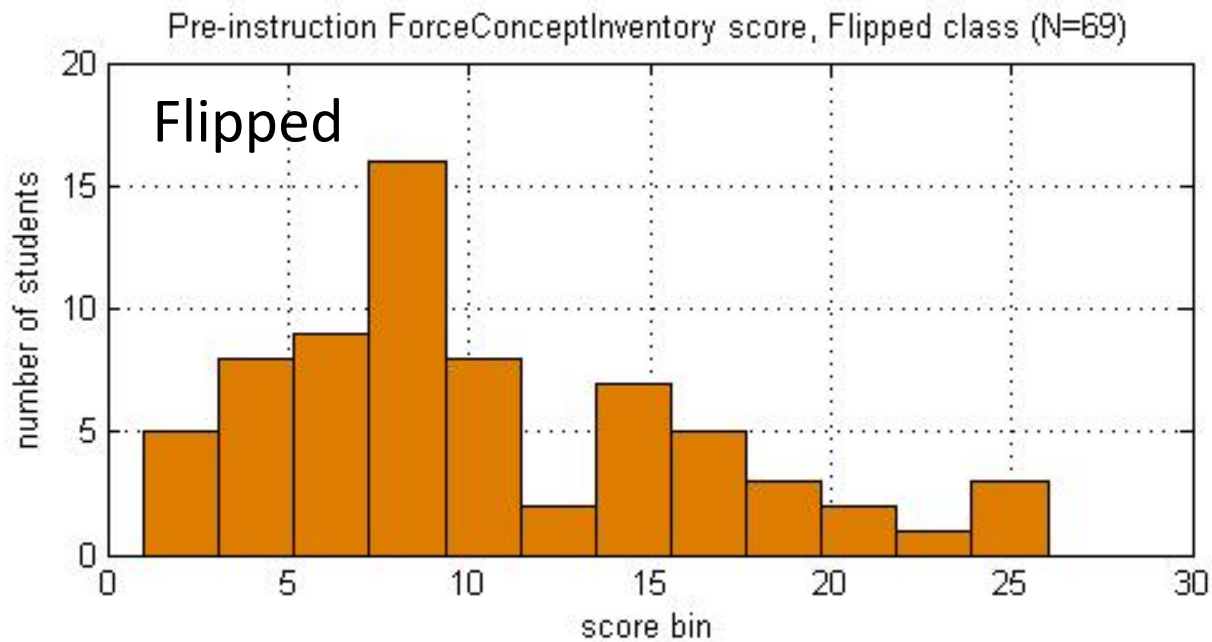
“I think we should never spend time on purely **theoretical** discussions.”

PreFCI



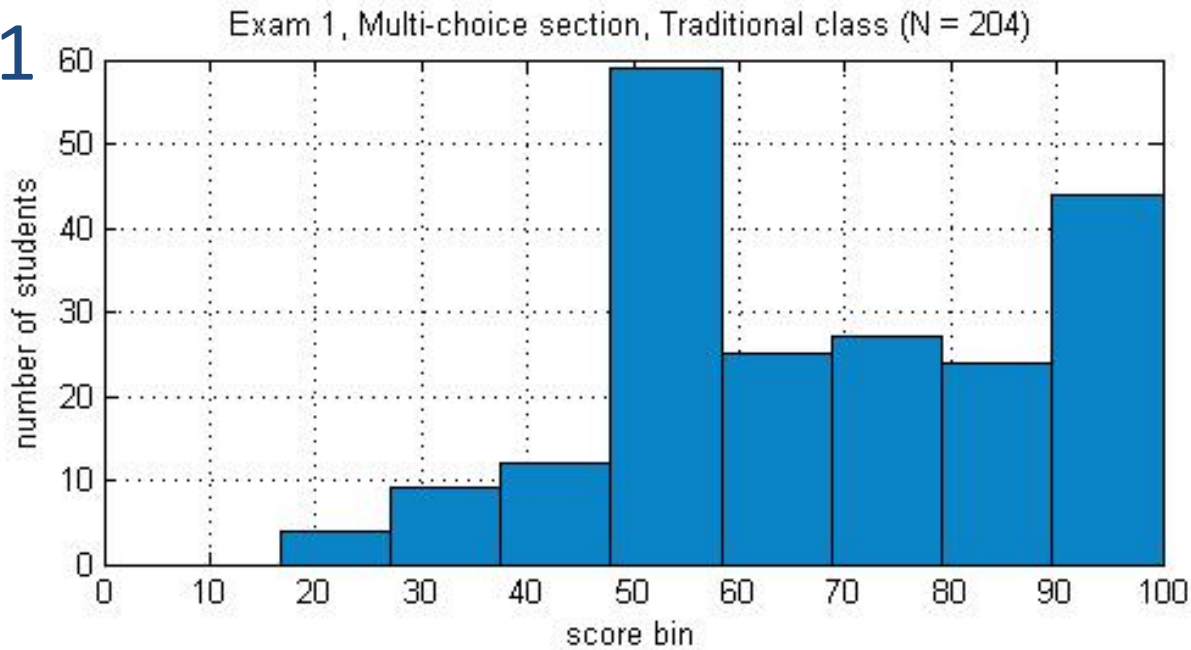
Multiple choice
(30 questions)

Average: **34.4%**
Median: **33.3%**



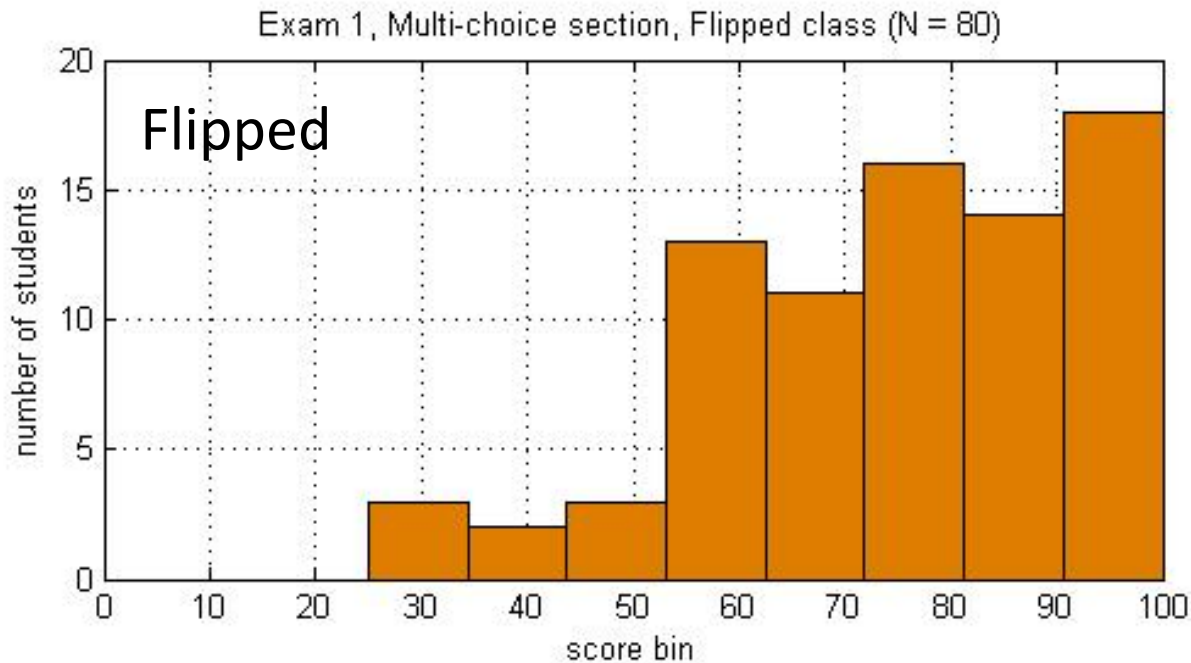
Average: **35.2%**
Median: **30.0%**

Exam 1



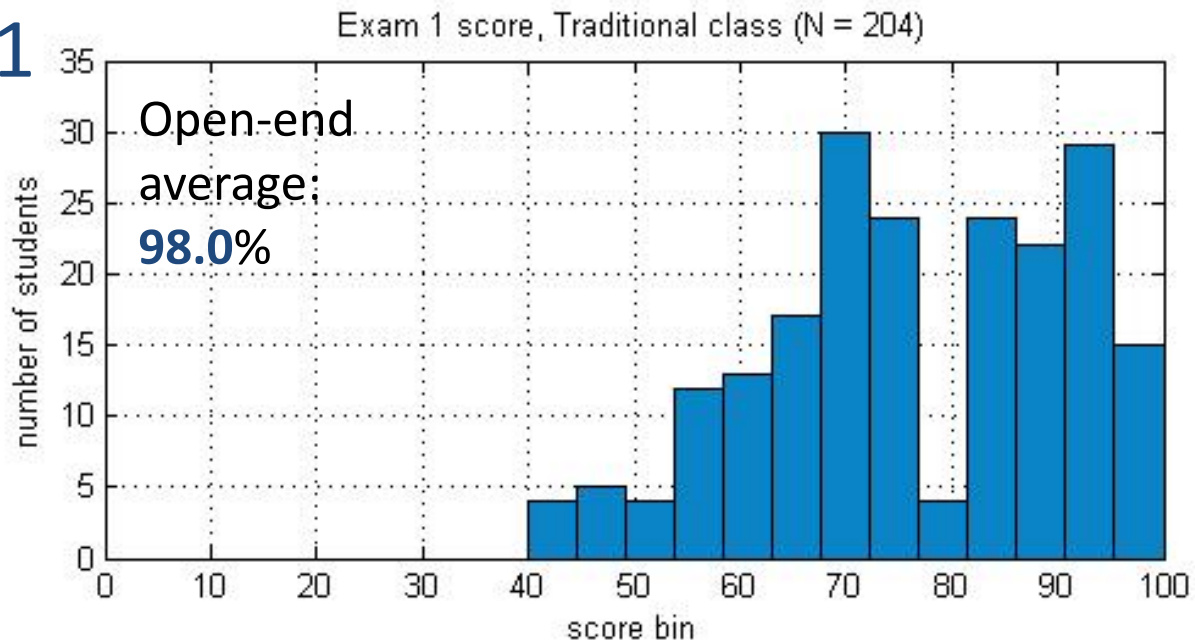
Multiple choice section **only**

Average: **68.3%**
Median: **66.7%**



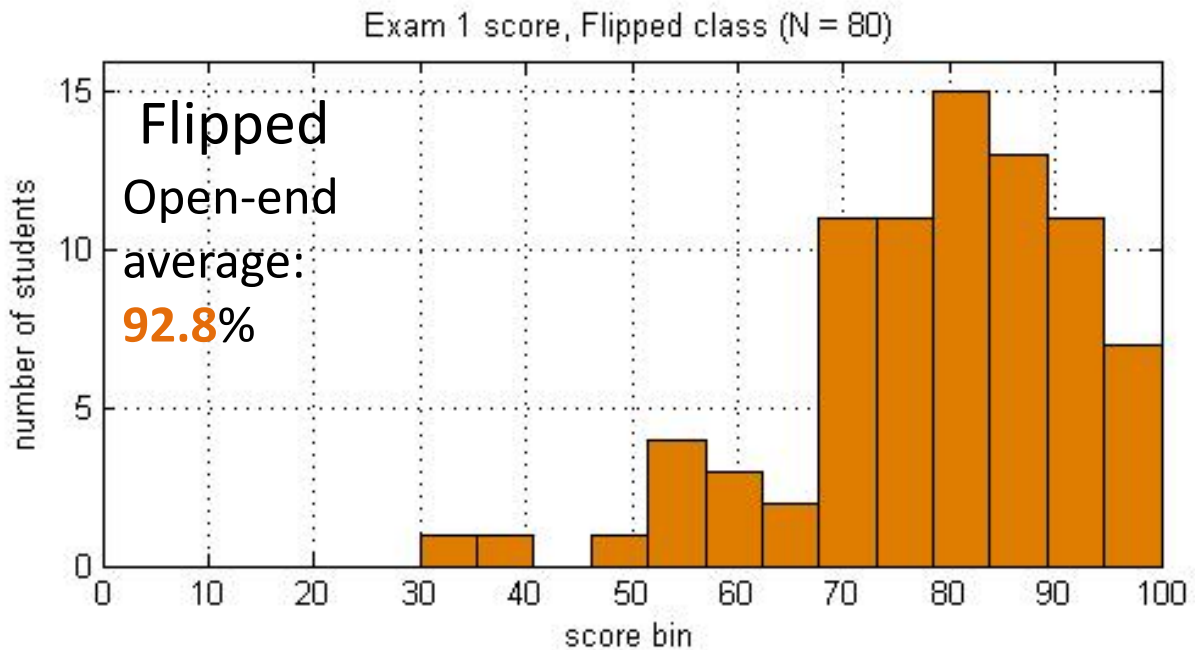
Average: **73.5%**
Median: **75.0%**

Exam 1



Total Score:
72% Multi-choice
28% open-end

Average: 76.6%
Median: 76.0%
Stdev: 14.7%



Average: 79.0%
Median: 81.7%
Stdev: 14.0%