

- We are trying to catch the excitement they have after an exam, in the exam

# Learning Together?

Using 2 Stage (Group) Exams  
in Your Courses

Video

# Goals

Define 2 Stage (or Group) exams (for my context)

Describe 2 Stage exams

Discuss advantages and disadvantages of 2 Stage exams

# Group Exams?

- How often do you use group activities in your classes?
- Have you used collaborative assessments with your students before?
- Think you might have used group exams?

# What exactly did we do?

During exam time

- Students complete and hand in individual exam
- Then get into groups of  $\sim 4$  to work on group exam

# What exactly did we do?

- The Group Exam is identical to the individual exam - plus a one or two more difficult questions
- Students work on group exam together
  - But with less time
- Important! The group only gets one exam sheet!

# What exactly did we do?

Students given the following instructions:

- Sit with your group
- 10:30-11:25 Individual Exam.
- 11:25-11:30 Hand in Individual Exam and get Group exam
- 11:30-12:00 Group Exam
- Please put your group ID on Your Scantron form



# Group Exams at UBC

Classes within the CWSEI project using group exams:

PHYS 250 - Modern Physics for Engineers

57 students

Lecture format – 2 hour class

3 group exams (2 midterm, 1 final)

# Group Exams at UBC

EOSC 111 – A Laboratory Exploration of Planet Earth

110 students

lab format

18 students per lab

12 pre lab group quizzes (less than 5 minutes)  
one each week

# Group Exams at UBC

EOSC 114 – The Catastrophic Earth

150 students

Large lecture format – 3 hour class

Immovable seats 😊

Condensed 3 week summer class

2 group midterms 1 group final

# Group Exams at UBC

EOSC 114 – The Catastrophic Earth

450 students

Large lecture format - 50 minute class

Immovable seats 😊

3 group midterms 1 group final

# Advantages

- Just in time learning they have just studied
- Feedback – they get ideas and feedback right away
- - Hints if they get stuck
- Answer more difficult Qs
- Relax get more ideas

# Advantages

- Nearly instant feedback - excellent for retention
- Develops “soft” group work skills
- Lower achieving students get extra explanation
- Reduces anxiety

# Advantages

- Higher achieving students benefit from explaining and reinforcing knowledge
- **ALL** students participate!
- Quieter students get a chance to contribute even in large classes
- Normalizing effect
- Students like it and believe it helps their learning

# Some Student Comments Phys 250 and EOSC 114

“Great idea! The group exams give you a chance to go over your answers to the exam while you still care about the questions.”

“Some problems, its a good way to find out what you did wrong on the individual exam almost immediately.”



# Some Student Comments Phys 250 and EOSC 114

“Discussion over tricky questions facilitate learning immediately and the answer/concept is stuck in your brain FOREVER!”

“You actually learn what you got wrong right away from a student perspective”

# Some Student Comments Phys 250 and EOSC 114

“... That said, there was the issue of excessive discussion in the group exam. That is, there were several times where a part of a question was contentious within our group and the ensuing debate, frequently ended only by calling over Louis, often took up so much time that doing the last few questions was hurried and messy.”

# Feedback from EOSC 114

Group Exams are...

# Positive Comments

Discussion	48	Build confidence	8
Learn why you were wrong	37	Understand questions better	6
New Perspectives	29	Learn techniques from others	6
Better grades	21	Other	27
Instant feedback	16		
Review	10		
		Total	208

# Negative Comments

Coming to consensus	21	Realize did poorly individually	3
Time consuming	13		
Unbalanced knowledge in group	6	Worth too much	2
Convinced of wrong answer	3	Other	8
		Total	56

# Possible Disadvantages

-hard in short classes (50Min)

-Time

-Marking?

Disability Centre







Could limit Questions

# Possible Disadvantages

- Social loafing
- Dominant group members
- Sidetracked by process
- Assigning Marks
- Student inexperience with groups!
- Time!
- Getting wrong answer

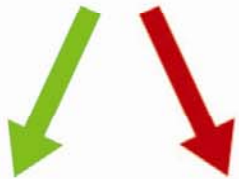
# How Groups Choose (EOSC 111)



How group members performed individually	All individuals in group correct	Majority of individuals in group correct	50% of individuals in group correct
(#of instances) % of instances	(600) 39%	(448) 29%	(197) 13%
Group performance	  Group Correct      Group Incorrect	  Group Correct      Group Incorrect	  Group Correct      Group Incorrect
(# of instances) % of instances	(600)      (0) 100%      0%	(436)      (12) 97%      3%	(169)      (28) 86%      14%

Minority of individuals (>1) in group correct

(144)  
9%

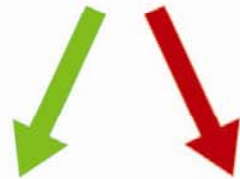


Group Correct      Group Incorrect

(92)      (52)  
60%      40%

All individuals different answers - 1 correct

(84)  
5%

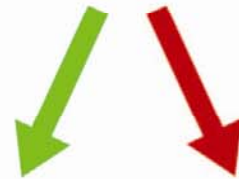


Group Correct      Group Incorrect

(64)      (19)  
74%      26%

All individuals wrong  
More than one answer

(38)  
3%

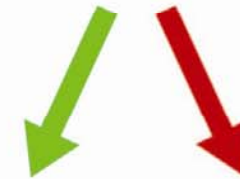


Group Correct      Group Incorrect

(30)      (8)  
79%      21%

All individuals wrong - same answer

(17)  
1%



Group Correct      Group Incorrect

(1)      (16)  
6%      94%

# Revisit video

- Video from this summer (only students who gave permission)
- What things do you notice?

# Barriers?

Are there any barriers that might prevent you from doing group exams in your own classes

# Future Plans

Testing whether students learn group exam material better than those who only do individual exam

How?

# Summary

Groupwork and timely feedback

# Acknowledgments

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Questions?