

### Moodle Peerwork

#### Noeleen O'Keeffe

Teaching Enhancement Unit, Dublin City University noeleen.okeeffe@dcu.ie

## Moodle Peerwork Tool (Group Review)



### The Challenge

- Assessing students' individual contributions in a group assignment
- Freeloader & sucker effect
- Lack of recognition of individual contributions
- Lack of accountability



### The Solution

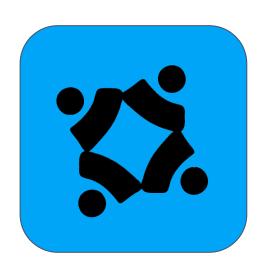
- A collaborative tool within Moodle that facilitates peer assessment and group work
- Fair grading
- Improve group dynamics
- Enhance reflection & accountability

### Peer Work

Peerwork plugin developed by City St George's University of London

Background info and instructions available on their website

Many thanks to the team for sharing this great plugin, and their guidance!



### **Moodle Peerwork Tool - How it Works**

### Setup

- Teacher sets group assignment
- Creates a group review activity
- Defines criteria for peer assessment

### Submission

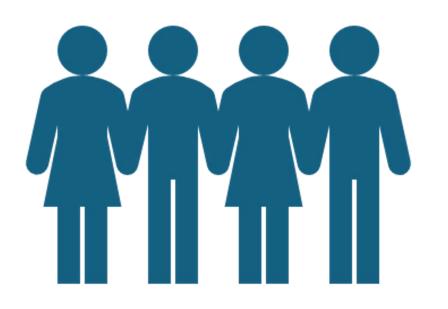
 Students submit their group work

#### **Evaluation**

Students
 assess
 their peers
 based on
 criteria set
 by teacher

# Grading and Feedback

- Teacher enters a mark for group element
- WebPA calculates the scores
- Teacher reviews
- Provides final grades



# Group Review: Helping Groups Help Themselves

Emma Coyle

School of Chemical Sciences, Dublin City University emma.coyle@dcu.ie

### Overview

- Group Review key settings
- Case Study 1: First Year Interdisciplinary Science
  - How we use it
  - Feedback from students
- Case Study 2: Final Year Sustainable Processes (CBL)
  - How we use it
  - Feedback from students
- Summary

### Group Review key settings

- Require submission as part of group review?
- Group review weighting?
- Penalty for nonsubmission?
- Visibility of groupmates grades?

- Criteria for evaluation
- Scoring scale
- Justification visibility?

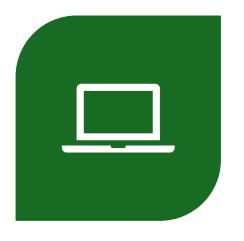
# First Year Interdisciplinary Science

Case Study 1 (2022-23)

# CS150 (CHM1007) Interdisciplinary Science



First year students, second semester, ca. 180-200 students



Fully online



Interrupted timeline (skills sprints, hackathon)

# Activities in CS150

Skills sprints

- Week 1

themed
workshops

Career
visioning –
Week 4
Careers
Service
content

Topics of ethical consideration – Week 6/8 ESD theme

Hackathon – Week 10 (40%)

2-day online event

### Group Review in CS150: Set-up

- Group Review for all group outputs (eportfolio, debate, hackathon)
- 3 Categories:
  - Communication (Engagement with team)
  - Contribution to the planning and execution of group activity
  - Quality of content
- 3-Point scale: Unsatisfactory (0), Satisfactory (1), Outstanding (2)
  - With an expanded explanation for each point on the scale provided

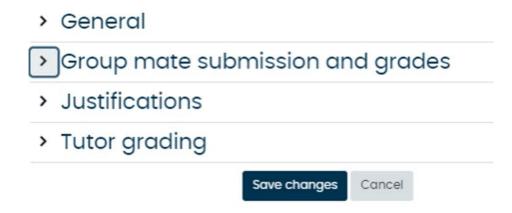
## Group Review in CS150: Student input

• Instructions: Complete this Group Review to give feedback on how your team worked together for the [activity]. This is your chance to let us know where some team mates were more or less active in the activity than others. This will be used to generate individual grades for each team member, rather than a group grade for the [activity].

- 3-4 students per group
  - Graded each team member on the 3-point scale
  - Field for comments ("justification") very useful information

### Group Review in CS150: Viewing results

- Input of group grades can be done on the home page
- Select any group to see the grades given and calculated



#### Engagement with team members.

For each team mate, indicate how well they engaged with the team for the debate activity.

- Unsatisfactory team member did not engage with the team for the debate activity
- Satisfactory team member engaged with team but was only somewhat responsive to contact with the group and/or did not take initiative to work towards the group's objectives.
- Outstanding team member was very responsive to engaging with the group and/or took initiative to work towards the group's objectives. Helped the team move forward.

	-			-	
-	-	2	2	2	
	2	-	2	2	
	1	1	-	2	
	2	2	2	-	

### Group Review in CS150: Viewing results



Group grade out of 100

Group review weighting

Calculated grades

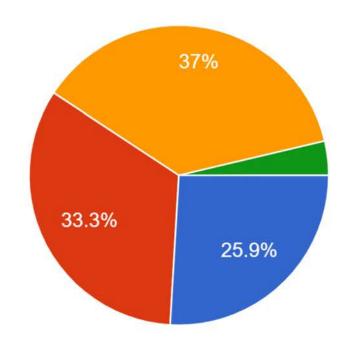
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Name	Contribution  ③	Calculated grade ?	Penalty	Final weighted grade	Revised grade
He etca	1.0303	68.00	0%	68.00	66.00000
4-14.2	0.9394	62.00	0%	62.00	66.00000
A'173m	1.0000	66.00	0%	66.00	66.00000
DE OF SER	1.0303	68.00	0%	68.00	66.00000
Total		264.00		264.00	264.00

Q21. It was good to have the option to review my group mates' performance in the Group Review activity

27 responses







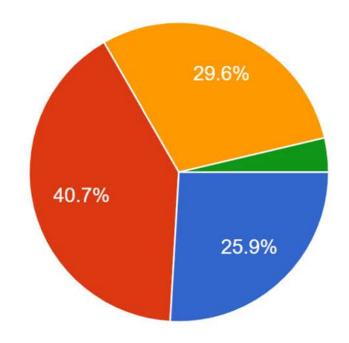


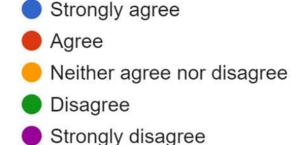




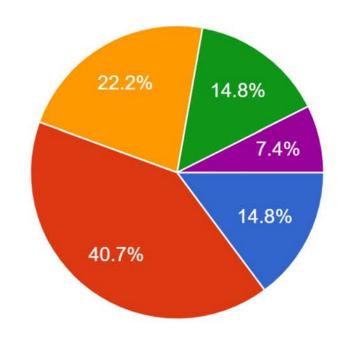
Q22. It was good to have some control over the individual grade component of group work via the Group Review activity

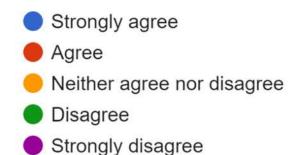
27 responses





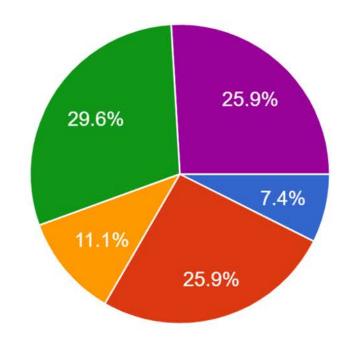
Q23. I would like to see Group Review used in other modules where group work takes place 27 responses

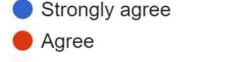


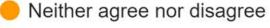


Q24. I would like to see my group mates' justifications for the ratings they give me in the Group Review activity

27 responses











# Final Year Sustainable Processes (CBL)

Case Study 2 (2024-25)

# ENS1021 Sustainable Processes (and BTE1048 Bioprocessing for the Circular Economy)

Final year & ECIU students (25 students)

Hybrid

Challengebased learning

### Activities in ENS1021/BTE1048

**Assignment 1:** Interactive Oral Examination - Week 6 - 15%

Assignment 2: Hackathon (Group Project) - Week 6 - 15%

Assignment 3: Group ePortfolio - Due End of Week 12 - 30%

**Assignment 4:** Group presentation - Due Week 11 - 20%

**Assignment 5:** Individual Reflective journal - End of Weeks 7, 10 and 13 - 20%

Group Review used for the three group assignments (hackathon, presentation, eportfolio)

# Group Review in ENS1021: Category Set-up

#### Hackathon:

• Planning, documentation, idea generation, presentation, abstract

#### Presentation:

 Engagement with group, Contributions to group research, Quality of contributions, Preparation of presentation, Delivery of presentation

#### ePortfolio:

 Background and challenge definition, Solutions including action plan, Critical analysis – knowledge and understanding of challenge, Critical analysis – strengths and weaknesses, Critical analysis – holistic approach/scientific soundness, Other elements (academic standards, creativity/design/originality/multimedia)

### Group Review in ENS1021: Scale set-up

- 6-Point scale:
  - No participation at all (0), Not assigned to task (1), Some input to task (2), Good input to task (3), Substantial input/leading the task (4), Did task alone (5)
- Please note It is perfectly fine to be "not assigned" to a task if the group decided to split responsibilities. This scale is not a direct "grade" but gives us a basic documentation of who was doing what, and in the unlikely case there are significant imbalances we can check in with you. Ideally, all members should contribute to each part.

## Group Review in ENS1021: Student input

S Idea Generation	tudent A	Student	t B Stude	nt C Studen	t D Student E	
(Share, prioritise an	d refine ide	eas, identify	challenges)			
Student A	-	3	3	0	3	
Student B	3	-	3	1	2	
Student C	2	2	-	0	2	
Student D	·»	-	-	1-0	-	
Student E	3	4	3	0	-	
Presentation						
(Summarise key points, support delivery)						
Student A	-	1	5	0	1	
Student B	1	-	5	1	1	
Student C	1	1	-	0	1	
Student D	-	-	-	-	-	
Student E	3	3	4	0	-	

#### Tutor grading

Group grade out of 100

60

Group review weighting

25

# Example of Grade Calculations

Calculated grades

Name	Contribution	Calculated grade①	Penalty	Final weighted grade	Revised grade①
Student A	1.2119	72.72	0%	63.18	
Student B	1.2610	75.66	0%	63.91	
Student C	1.3301	79.80	0%	64.95	
Student D	0.1225	7.35	100%	0.00	60.00000
Student E	1.0745	64.47	0%	61.12	
Total		300.00		253.16	60.00

### Feedback from students

Very good, easy to use, holds people accountable for the amount of work required

The tool was great, depending on the type of people you are working with

My experience with this group was very bad. Some members chose not to contribute, and tensions arose when they realized I had the ability to provide feedback on their participation. When I discovered that reviews could be shared with other group members, I felt unable to provide honest feedback out of concern for potential further conflicts within the group as we had additional group work after the first review...

### Group Review Tips & Tricks

- More granular scale gives better results
  - Can use result directly without significant variation
- Review justifications for checking group dynamics and identifying absent students
- Can choose to apply multiplier to entire grade or part
- Penalty for non-submission of review
  - Non-submission by a peer results in a need to override grades

# Helping Groups Help Themselves: Summary



#### **Group Size**

Works best for groups of 4 or more



#### **Group Dynamics**

Can be used for students and academics to observe group dynamics and address conflicts



#### **Group Grades**

Enables individualisation of grades from group activities