Improving group dynamics using Peer Review & Group Member Evaluation

Context

In this bachelor's level course, students dive into marine botany, covering ecological as well as anthropological aspects such as the interaction of humans with marine environments. Taking place in the first trimester of the second year, the course featured group presentations and a final symposium, whereby the groups answered questions and held a discussion.

FeedbackFruits tools were used in this course to make the feedback process easier for students, and to enrich groups’ ability to work constructively with each other. In addition, the instructor wanted to make the process more transparent and eliminate free-riding. Peer Review was used to allow feedback and questions relating to the presentation, while Group Member Evaluation to evaluate each other’s contributions and performance within the group.

Constructive alignment

Learning objectives

- Students can work collaboratively to produce a written and oral presentation concerning marine biology and ecology and an aspect of relevant human interaction.
- Students can show the ability to be a constructive member of a team.
- Groups can function well as a team, choosing and presenting an analysis of their chosen topic.

Learning activities

Over the course of the trimester, groups of four to five students choose a topic, research it and work on a presentation. This presentation is then recorded at home and uploaded within Peer Review, whereafter students have time to give feedback to other groups related to the quality of the presentation, the style and the oratory skills of the presenters. They also had to include two questions to be addressed. In-class discussions are held which address points raised during the feedback exercises and help students to reflect and improve on their work and skills within the group and individually.

In the symposium, students summarise their presentations in one minute and answer the questions which were previously asked using Peer Review. Afterwards, group members give feedback to each other according to a list of criteria using Group Member Evaluation. The scores (0-3 points) are based on things like project planning, listening skills, respect for others and punctuality. Afterwards, students write one final reflection on three things: something they learned, something they did well on, and something they could improve upon.

Learning activities based on the Bloom taxonomy are mainly at the level of:

- **Understanding and applying** research and knowledge relating to various topics in marine botany
- **Evaluating** the work and skills of peers and group members, and own contribution to a group project
Assessment of learning outcomes

- Group Member Evaluation was used summatively at the end of the course. The rubric was split into two parts: content of the presentation and presentation skills. Therefore the object of assessment was both the group dynamics and the quality of the deliverable which they worked on together.
- The scores students received in FeedbackFruits accounted for 10% of the overall grade in the unit.
- The overall grades students received were modified with a Group Contribution Factor, which awards a multiplier based on how well students scored compared to their other group members.

Quote from the instructor

As soon as I implemented the self and peer-assessment, my group dynamic problems disappeared.

Notable outcomes

- The instructor noted that while using Peer Review and Group Member Evaluation, groups’ teamworking abilities were vastly improved.
- Compared to the previous feedback setup, there was now much richer conversation and discussions were achieved, thanks to the extra time to reflect and come up with more interesting questions.
- Receiving richer feedback through FbF helped students learn faster and become more aware of it.
- The ability to overview all student activity, including students’ completion of giving and receiving feedback, as well as each comment and question, was found to be very helpful as a reference point for the instructor.

The role of the instructor

- As well as including details about how to give feedback and leave questions in the course manual, the instructor introduced details of the feedback activities and process around week 3-4. A practice run was held to make sure students were familiar with how the tools and interface work.
- Afterwards, the instructor facilitated in-class discussions where students reflected on the feedback they had given and received.

Added value of technology

- The instructor noted that this assessment gave students the potential to become great team players, given the ease and transparency of the feedback process using FeedbackFruits. Furthermore, they expressed that that students’ learning experience was markedly improved when using these tools.

Possible variation

The instructor can incentivise more elaborate feedback by requiring students to include extra questions while giving feedback ratings to peers. In a summative assessment, this extra element of feedback can also contribute to the overall grade of the assignment.