Supporting effective group collaboration and communication in a research project

CONSTRUCTIVE ALIGNMENT

Learning activities

- Students can practice giving and receiving constructive feedback, collaborating and communicating in a group setting, and reflecting on the group process.

Other learning objectives are part of the program but are not related to the peer feedback component.

Learning objectives

- Students can practice giving and receiving constructive feedback, collaborating and communicating in a group setting, and reflecting on the group process.

CONTEXT

In this semester-long project on data science and artificial intelligence, students work together in research projects based on various subtopics with their team.

The problem-based learning approach, the group member evaluation tool, was used to provide students with a platform where they could give feedback to each other and also give them a chance to improve based on the feedback they received. With a strong focus on group project management, planning, and evaluation throughout the course, it was imperative to provide students with a space to complete these feedback tasks, while simultaneously allowing the instructor to maintain oversight of the process.

GROUP MEMBER EVALUATION

Instructor workload

- Group member evaluation

- Instructor workload

- Class size: 50

In this semester-long project on data science and artificial intelligence, students work together in research projects based on various subtopics with their teams. In a problem-based learning approach, the group member evaluation tool was used to provide students with a platform where they could give feedback to each other and also give them a chance to improve based on the feedback they received. With a strong focus on group project management, planning, and evaluation throughout the course, it was imperative to provide students with a space to complete these feedback tasks, while simultaneously allowing the instructor to maintain oversight of the process.

The instructor chose to incorporate Group Member Evaluation in order to address the problem of free-riding in group work. Group work is a student’s opportunity where they could give feedback to each other and also give them a chance to improve based on the feedback they received. With a strong focus on group project management, planning, and evaluation throughout the course, it was imperative to provide students with a space to complete these feedback tasks, while simultaneously allowing the instructor to maintain oversight of the process.

Learning objectives

- Students can practice giving and receiving constructive feedback, collaborating and communicating in a group setting, and reflecting on the group process.

Other learning objectives are part of the program but are not related to the peer feedback component.

Learning activities

The course consisted of three phases, with the first of these covering the setting up of the project. At the end of the first phase, lasting seven weeks, groups hand in their project plan and give a presentation to both the client and the internal examiners. The second phase, also lasting seven weeks, follows a similar structure, and the finite final phase, lasting three weeks, is a final project presentation, where examiners evaluate whether students were asked to deliver their research directions and choices. The Group Member Evaluation tool was used in the second and third phases, and a final feedback discussion took place afterwards, where students reflected on what they had learned from the feedback.

One of the main purposes of providing a chance to personally discuss feedback on group processes and performances. The feedback given within the tool was based on three questions: what did the reviewer do well; where could they improve; and what did you especially appreciate in this person? Additional comments were also allowed but not mandated. Reviewers could see who they were reviewing but they remained anonymous to the recipient.

Learning activities according to Bloom’s Taxonomy were mainly at the level of: