

7. Toolkit module: Students' co-assessing

7.1. Overview

The process of assessing student works is directly related to teaching. This process needs to be transparent and objective. Including students in this process increases the transparency of the assessment. At the same time a properly designed assessment process makes it objective, regardless of who is making the assessment.

7.2. Objectives

This toolkit aims to present tips and advice for organising events where students participate in co-assessing. The purpose of this material is to empower students as participants in this process.

7.3. Analysis of workshop conclusions

The following issues were discussed during the "Workshop for modular training toolkit for students engaged in ENHANCE activities" organised at the Warsaw University of Technology on 5th November 2021.

7.3.1. Encouraging students

To discuss the issue of encouraging students to participate in co-assessing, there is a need to answer the following questions

- What are potential **incentives** for a student to participate in the co-creation activities?
- How to **encourage** students to co-create university activities?
- What can **discourage** students from participating in the co-creation process?

It should be noted that the process of mutual evaluation by students (peer-assessment) is difficult. In order to encourage students to participate in this process, we suggest that they should follow a sample exam grading done by the professor to focus on the errors (but also positive elements). Such activities expand their knowledge and strengthen the student-teacher relationship. Students' involvement in defining the criteria and assessment methods contributes to organizing and facilitating the assessment process (also for the teacher). At the same time, thanks to their involvement, students are better aware of the whole assessment process. Self-assessment is also an effective learning method as it allows to learn about one's own mistakes.

7.3.2. Costs and benefits

To address the problem of costs and benefits of the students' participation in co-assessing, there is a need to answer the following questions.

- **Do we need** co-creation at a university?
- What are the **costs** (not necessarily financial) of co-creation?
- What are the **benefits** (for whom) of co-creation?

The incentives for students to participate in the co-assessment process are: increasing the transparency of the assessment process, better understanding of feedback received from teachers, understanding what the evaluation process involves and understanding why students are assessed in a certain way. In addition, a discussion about learning outcomes and how to fulfil them can be initiated. Students are more involved in the course but will also be more prudent in delivering reports or presentations. On the other hand, there is a risk of subjective evaluation of colleagues. There may also be a concern that other peers would not be able to provide objective evaluations.

7.3.3. The organisation of the co-creation process

Analysing the organisation of the students' participation in co-assessing incurs a need to answer the following question.

- How to organise the co-creation process to engage a small selection of participants and /or the whole community?

The organization of the co-assessing process should be thoroughly prepared due to the sensitivity of the matter. The assessment process should be anonymous in order to be clearer and more honest without the fear of students being criticised after giving a bad grade. The overall assessment should involve students' self-evaluation, which should not be the core but a part of the evaluation process. Moreover, not all courses are suitable for co-assessing. However, courses that are particularly suitable for co-assessing are the ones in which projects (including team projects) are to be assessed.

To facilitate the assessment process by students, it would be useful to prepare the criteria, e.g. in the form of a table to be filled. It could also be recommended to prepare the set of minimal requirements for co-assessment and discuss them with students at the very beginning of the course. It is also worth highlighting that one student should not assess too many colleagues.

7.4. Examples

The examples of co-creating events (not necessarily carried out correctly) at different universities are presented below.

7.4.1. Students co-reviewing the reports

At Warsaw University of Technology, the students taking the "Agent and Actor Decision Systems" course (it is the master's degree course dedicated to the Intelligent Systems specialization in the field of Computer Science) are divided into teams and one of the assignments given to each team is reviewing another team's report. The sections of the report that are subject to review concern the **design** and **implementation** of a multi-agent system.

The students are expected to write short reviews of each of these two sections during the semester (after these sections have been submitted by their peers). The review should contain identified deficiencies, inconsistencies, and suggestions for alternative solutions. It needs to be stressed that the students are not supposed grade the report.

The review is anonymous (for the students) and students use a simple questionnaire where they enter their comments about the review together with their name, group and other necessary information. Only the teaching team has access to this personal information. The students receive anonymous reviews of their reports, and it helps them in the next stages of the work on the project. Consequently, they can use the received comments and suggestions to improve their project.

Due to the fact that each team usually receives 3-6 reviews (as well as the teacher's comments), they gain a lot of comments with different points of view. It should be pointed out that the content of the review does not affect the evaluation of the report.

7.4.2. Peer-assessment

Various forms of peer assessment (co-assessing by students) are applied within the elective course of "Presentation techniques" offered to the undergraduate students at the Faculty of Electronics and Information Technology, Warsaw University of Technology.

One of the students' tasks in this course is to write a short research report (3-4 pages) on the work done for a design project within some other courses taken at the faculty. Then such a report is reviewed and graded by the instructor and one other student. The review is done using a form containing ca. 25 closed questions and the field for general comments and the detailed comments are to be inserted into the text of the report. The author of the report receives only the review done by the instructor (the review form and the report annotated with these detailed comments). The assessment done by the student is not presented to the author's report and has no impact on his/her grade but is subject to grading by the instructor (mainly for relevance and quality of the general comments).

As the next assignment each student gives a 10-minute presentation on the project described in his/her report. The presentation is assessed by two instructors and two designated students, using the form containing a few closed questions and the field for general comments. During the presentation, other students fill out a simple on-line questionnaire containing only closed questions. The concept of Bring Your Own Device (BYOD) is applied if the course is taught on-campus. Then a discussion on the strengths and weaknesses of the presentation takes place in which both the students and instructors participate. As a result, the author of the presentation receives the ample feedback (summative assessment from the instructors and anonymised formative assessment from the students). The two students designated to assess the presentation comprehensively are graded for relevance and quality of their comments.

The third assignment the student has to complete is to record a 3-minute video on the earlier presented project, following the rules of the British Council FameLab contest (<https://www.britishcouncil.org/education/he-science/famelab>) and upload it to the course website so that the whole class could access it. The other students are asked to review several videos prepared by their colleagues and are graded for their reviews. Then, the selected parts of the students' videos are presented and commented on by the instructors in class. This way, each student receives ample feedback in the form of both summative assessment (a review and grading by instructors) and formative assessment (general comments by the instructors in class, anonymised reviews from other students).

The above-described co-assessment concepts are universal in the sense that they can be applied regardless of whether on-campus or on-line teaching (in the time of COVID-19) takes place.

7.5. Suggested scenario

The scenario of a **meeting** preparing students for a peer assessment is presented.

7.5.1. Overview

Preparation of students to peer assessment.

7.5.2. Objectives

The meeting aims to prepare students to evaluate the work of their colleagues.

7.5.3. Target participants

Students participating in peer assessment

7.5.4. Format

A short meeting with Q&A.

7.5.5. Duration

30-45 minutes

7.5.6. Resources

It is essential to have the form (on-line or printed) for peer assessment. The examples of descriptive assessments with the teacher's comments on the quality of the assessment.

7.5.7. Description

The meeting should start with a brief discussion on the goals of the peer assessment, highlighting the advantages for both parties (the evaluator and the person being evaluated). Then the teacher should discuss the assessment form prepared in advance, paying attention to the clarity of the description and the purpose of the individual items in the form. The questionnaire should not be too extensive to avoid boredom. It should be clearly described how to carry out the assessment. It is vital to ensure the anonymity of the evaluators; therefore, online forms are recommended.

Afterwards, a teacher should organize a Q&A session to clarify any doubts.