Student engagement and asynchronous tools for formative assessment
Ground rules
Rapid shift to online teaching – learning

Online teaching – Emergency remote teaching [1]

Changing teaching: Changing assessment?

Adopting elements from online teaching – What defines online teaching?
Learning objectives → study guides
Instructional design: paths, self-paced.
Mediated by technology: asynchronous – synchronous tools
Control → responsibility, motivation, self-regulation
Communication – collaboration: Online community
Reflection
Online assessment?

Different options (Webinar #1 – analysis of types of assessment)

**Synchronous:** Remote exams (proctoring), online quizzes, oral exams (videoconference)

**Asynchronous:** Assignments, variety of tools and projects (continuous assessment).

**Considerations:**
Trust, reliability, technical and organizational issues, culture (institutional, classroom), personal (time management, skills, teaching values).

**Online context:** Supporting learning, information for students and lecturers, guidance → **Formative assessment** [2]
Reappraising assessment

Our assessment? Elements for reconsideration/redesign?

Evidence of student learning: What evidence do we need/have?

Values:
- *View of assessment*? Grading, measuring, improvement, supporting student learning
- *Teaching-Learning*? Types of activities, lecturer & student roles, approach, collaboration
- *Desired outcomes*?

Changes in assessment due to the current situation → more profound changes? Will these changes remain in the future? Impact on our teaching?

[Yes] [No]
Approaches to assessment

*What* do we assess?

*Why* do we assess?

*Who?* Lecturer? Students? Both? Who assesses whom?

*How* do we assess? Methods

**Assessment:**
credit/recognition, accountability, transparency
Approaches to assessment

Alignment – Integration with our teaching
Contextualised (course, students, values, roles, teaching methods & activities)

“Technology – when integrated into a program that aligns curriculum, instruction, and assessment in a rigorous and constructivist learning environment – positions teachers to support student learning. Research on integrated and aligned technology programs has shown positive student outcomes on measures both academic and personal (e.g., job and life skills like critical thinking).” (Zinger, Tate & Warschauer, 2017: 580) [3]
Key concepts

Assessment: VALID, RELIABLE, FAIR

Types:
FORMATIVE: ongoing process – dialogic – influence on learning/course

vs.
SUMMATIVE: pre-designed, achievement, end-of-term

https://poorvucenter.yale.edu/Formative-Summative-Assessments

FEEDBACK: immediate/delayed, types of feedback (numerical, qualitative), who gives it

UPTAKE: “what learners claim to have learned at the end of the lesson” (Slimani, 1989)
High-stakes ↔ low-stakes


- Exams
- Continuous assessment (gathering low-stakes evidence during course)
- Peer and self-assessment (not grading!) – responsibility, motivation [5]
- Participation, reflection on learning outcomes.
Student responsibility

→ Reflective learning and **engagement**.

Evidence of achievement/learning?

Combining formative and summative assessment
Engagement

Dimensions:

- Affect (Interest)
- Cognition (Self-regulation)
- Behaviour (Time and effort, interaction, participation)

→ Effects: Academic (achievement, lifelong learning) and social (satisfaction, long-term effects)
  (Kahu, 2013) [8]

Multiple interrelated scales: academic/study skills, with peers/lecturers, commitment
(Krause & Coates, 2008) [9]

Reflexivity (Kahn, 2014) [10]
Engagement

What does it involve?

- On-task
- Commitment
- Responsibility
- Involvement in one’s own learning → Lifelong learning
Assessment: Higher vs. lower order thinking

Bloom’s Taxonomy

- **Remember**
  - Recall facts and basic concepts
  - Define, duplicate, list, memorize, repeat, state

- **Understand**
  - Explain ideas or concepts
  - Classify, describe, discuss, explain, identify, locate, recognize, report, select, translate

- **Apply**
  - Use information in new situations
  - Execute, implement, solve, use, demonstrate, interpret, operate, schedule, sketch

- **Analyze**
  - Draw connections among ideas
  - Differentiate, organize, relate, compare, contrast, distinguish, examine, experiment, question, test

- **Evaluate**
  - Justify a stand or decision
  - Appraise, argue, defend, judge, select, support, value, critique, weigh

- **Create**
  - Produce new or original work
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Assessment: Higher vs. lower order thinking

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Asynchronous tools

Self-paced
Planning, elaboration
Reflection
Individual - collaborative
Upper part of Bloom’s taxonomy

What asynchronous tools make sense in your context?
Projects/case studies

Real-life, problem-based, variety of **products** → **Create**

**Process**: stages → applying knowledge → Formative feedback for improvement, meaningful, contextualized, supporting learning

**Flexible/varied feedback**: lecturer, students, synchronous/asynchronous

(Time constraints? Webinar #1)

Individual/Collaborative (wikis or other participation)

Engagement with course contents (global, synthesizing)

Integration of skills

**Challenging, time-consuming, perceived learning?**

**Assessing communication/language skills together with technical knowledge?**
Assignments
Evidence throughout the term (progress), creation/evaluation/application, problem-solving, multiple formats (focus on specific aspects of the course)

Portfolios
Self-assessment, engagement, reflecting on own’s learning (selecting best samples).

Reflective discussion
Uptake, self-assessment, participation, engagement

Peer assessment
reviewing other students’ work. Rubrics → formative assessment [5]
Examples: peer review

Analyse/Evaluate

→ student-student feedback/formative assessment

Applicable to a variety of outputs? E.g. Design of a product, piece of code, usability testing.

RUBRICS

Challenges: perceived usefulness/value? Accuracy of feedback?

Student engagement → Impact/Use of peer review
Examples: oral presentations + report

Create/Evaluate

Oral presentation (in-class/videoconferencing), rubrics for assessment, scoring through clicker questions (interactive software) to prompt discussion

→ Student and lecturer feedback: discussion and comparison

→ Can be part of a larger project

<table>
<thead>
<tr>
<th>CRITERIA</th>
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<tbody>
<tr>
<td>Achieving Relevance  (Audience? Purpose? Interesting content?)</td>
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<tr>
<td>Providing an Introduction and a Conclusion  (Adequate? Attention getting? Smooth?)</td>
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<tr>
<td>Organizing Contents  (Clear organizational strategy?)</td>
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<tr>
<td>Using Linking Words  (Correct use of signposting: connectors, transitions?)</td>
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<tr>
<td>Intelligibility and Fluency  (Clarity? Is the presentation easy/difficult to understand? Smooth?)</td>
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<tr>
<td>Using Accurate Structures and Vocabulary  (Correct use of grammar, syntax, vocabulary? Correct pronunciation?)</td>
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Examples: reflection

Evaluate

- Self-assessment, uptake
- Keep track of learning, responsibility (evidence of non-mandatory activities)

Study guides. Explicit learning objectives.

WEEKS 9-10 (18 May-June)

1-Learning objectives:

General classes

- Designing the layout of the written text.
- Dividing the text into manageable sections, readability, chunking.
- Using appropriate and correct language in a written text.
- Revising a written text.

Peer review:

- Part 2: Reviewing another project’s first draft of the written text.

Project sessions:

- Revising the written text and producing a final version for submission (including revised abstract).

Activities (Materials) – Schedule

<table>
<thead>
<tr>
<th>Activities</th>
<th>Materials</th>
<th>Learning objectives</th>
<th>Feedback</th>
<th>Assessment (to be filled by students): How well did I do it? Difficulties? Aspects to improve?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity 1</td>
<td>Preview activity on language: Revising grammatical accuracy. Read chapter section 4.3 from the book and then revise one of the three passages (<em>choose only 1 passage</em>) from exercise 4-11.</td>
<td>Becoming familiar with the basics of the grammar of scientific and technical writing and main errors to avoid.</td>
<td>To be given by the lecturer during the online class.</td>
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Examples: reflection

Evaluate

- Self-assessment, uptake
- Feedback for the lecturer: info on students’ perception of our teaching, impact

Reflection on the work done -- WEEK 1 (Afternoon students)
per Elisabet Arnò Macà - dijous, 19 març 2020, 11:00

Dear afternoon students,

Please reply to this message with your reflection/self-assessment on the work done during week 1. Use the questions below as prompts.

What activities did you do? How well did you do them? What did you learn? Suggestions for classmates? And for the lecturer? What activities did you like the most/found most useful?

Deadline for your contributions: 26 March.

Looking forward to reading you all,

Elisabet Arnò
Examples: portfolio

Example from a technical writing course: Self- and peer assessment

**Workshop:** group discussions for peer review (feedback, peer review forms)

**Submissions, evidence:**

1-**Portfolio:** Selection of best samples (small number, critical assessment) draft + revised version, reflection paper (diagnosis of needs, evaluation of progress, learning outcomes, and further improvement)

2-Writing conference records of the sessions.

**Applicable to other outputs? Like a design, piece of code, etc.?**

Written production on practical work (e.g. lab reports)
Now it's your turn!
Discussion

What key decisions have we made when moving our courses online?

Impact of our teaching on assessment? and vice versa?

What assessment tools work best in our context? Alignment

What have we learnt? Do we plan to keep any of these changes in our future face-to-face/blended teaching?

Integration of competences/skills (communication in engineering): challenging, but in line with EHEA principles, real-life professional practice.

Transforming assessment, institutional policies, coherence across the curriculum? [12]
Wrapping up

Student responsibility/control: Greater awareness and engagement.

Adapting to students, course, cycle (bachelor’s, master’s)

Aligning teaching and assessment: Essential learning objectives? Asynchronous and synchronous tools to achieve those objectives? What evidence do we need? Assessment that supports learning (critical, creative skills)?

Explicit guidelines and learning objectives → rubrics → in better position to assess themselves and engage in learning → long-term effects (lifelong learning)
Wrapping up

Use of *online forums* for reflection, sharing, online community (presence), assessing participation, uptake

Towards a larger number of *low-stakes tools*

*Opportunity* to redesign our courses (including assessment) across modalities (online and classroom-based work)
References

[6] https://doi.org/10.5334/jime.468
[9] https://srhe.tandfonline.com/doi/abs/10.1080/02602930701698892
2020 UNITE! Webinar series

Webinars on online student assessment

Session 1 - **May 20th** – 03 : 00 PM - Fanny Poinsotte @GrenobleINP and Sabine Sainte-Rose, @UGrenobleAlpes

Session 2 - **May 27th** – 03 : 00 PM - Elisabet Arnó-Macià @la_UPC

Session 3 - **June 3rd** – 03 : 00 PM - Nadia Brauner, @UGrenobleAlpes