

Student engagement and asynchronous tools for formative assessment

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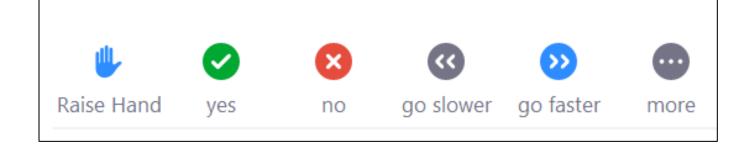


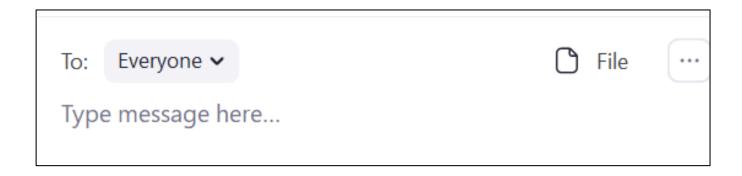




Ground rules







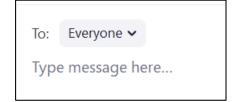
Rapid shift to online teaching – learning

Online teaching – Emergency remote teaching [1]

Changing teaching: Changing assessment?



Adopting elements from *online teaching* – What defines online teaching?



Online teaching – learning

WHERE AND HOW DOES TEACHING TAKE PLACE?

CHANGE OF PERSPECTIVE – MORE STUDENT-CENTRED

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

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)

Tools

High-stakes low-stakes

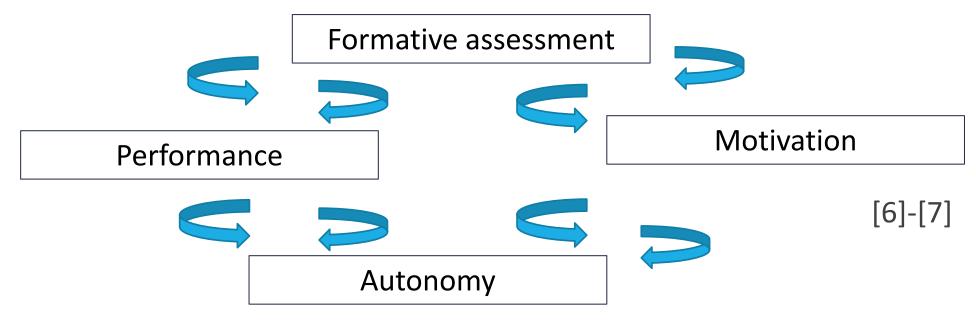
Trust – honesty – anxiety – self-efficacy [4]

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

Tools

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

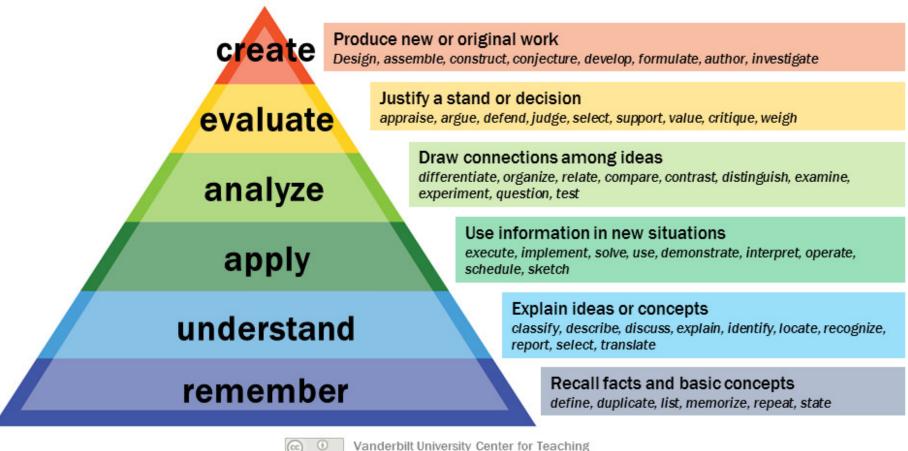
What does it involve?

- On-task
- Commitment
- Responsibility
- Involvement in one's own learning → Lifelong learning



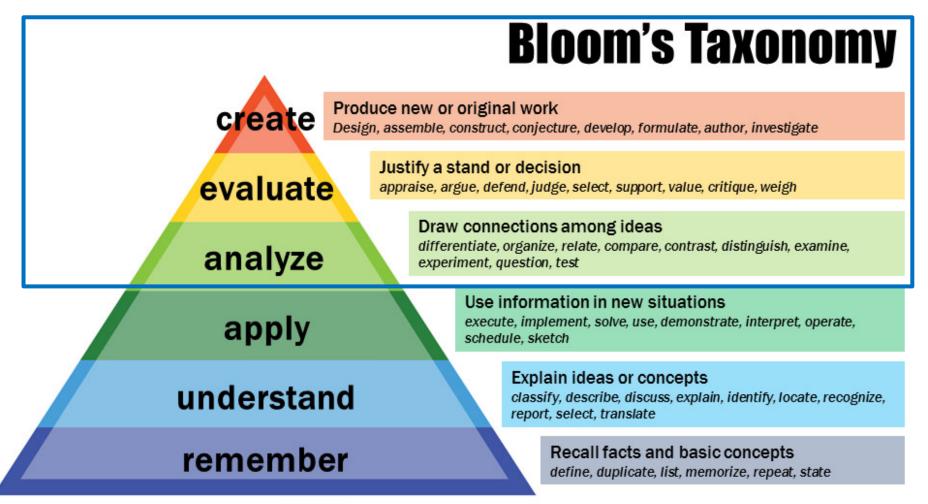
Assessment: Higher vs. lower order thinking

Bloom's Taxonomy



15

Assessment: Higher vs. lower order thinking





Asynchronous tools

Self-paced

Planning, elaboration

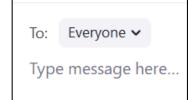
Reflection

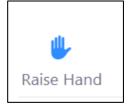
Individual - collaborative

Upper part of Bloom's taxonomy



What asynchronous tools make sense in your context?





Formats

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 (glol

Integration of skills

Challenging, time-consuming, perceived learning?

Assessing communication/language skills together with technical knowledge?

To: Everyone ✓

Formats

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

Use this form to assess another group's project document. You should submit your completed form to the forum 'Written text for project (First Draft)" reply to the original post sent by the project's authors.

Name of reviewer:	Date:
Project for review:	

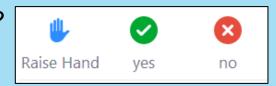
Each of the following criteria is accompanied by some guiding questions. For each of the criteria below, fill in the column with your comments.

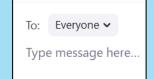
Criteria	Comments
Audience & purpose	
-Can we identify the intended audience and purpose of the text?	

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



CRITERIA

ACHIEVING RELEVANCE

(Audience? Purpose? Interesting content?)

PROVIDING AN INTRODUCTION AND A CONCLUSION

(Adequate? Attention getting? Smooth?)

ORGANIZING CONTENTS

(Clear organizational strategy?)

USING LINKING WORDS

(Correct use of signposting: connectors, transitions?)

INTELLIGIBILITY AND FLUENCY

(Clarity? Is the presentation easy/difficult to understand? Smooth?)

USING ACCURATE STRUCTURES AND VOCABULARY

(Correct use of grammar, syntax, vocabulary? Correct pronunciation?)

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

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

Examples: reflection

Evaluate

- Self-assessment, uptake
- Forum: participation, "social presence", sharing [11]
- Feedback for the lecturer: info on students' perception of our teaching, impact

Reflection on the work done -- WEEK 1 (Afternoon students)

per Elisabet Arno Macia - 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 Arnó

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 confi Applicable to other outputs? Like a design, piece of code, etc.? of the sessions Written production on practical work (e.g. lab reports)





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 \rightarrow rubrics \rightarrow in better position to assess themselves and engage in learning \rightarrow 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

- [1] https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning
- [2] https://link.springer.com/article/10.1007/s11528-013-0673-x
- [3] https://scholar.google.com/scholar?oi=bibs&cluster=8153520971339001599&btnl=1&hl=en
- [4] https://www.tandfonline.com/doi/abs/10.1080/07294360.2019.1581143?journalCode=cher20
- [5] https://www.sciencedirect.com/science/article/pii/S0191491X13000497
- [6] https://doi.org/10.5334/jime.468
- [7] https://www.tandfonline.com/doi/abs/10.1080/02602938.2020.1765228
- [8] https://www.tandfonline.com/doi/full/10.1080/03075079.2011.598505?src=recsys&
- [9] https://srhe.tandfonline.com/doi/abs/10.1080/02602930701698892
- [10] https://onlinelibrary.wiley.com/doi/abs/10.1002/berj.3121
- [11] https://coi.athabascau.ca/coi-model/
- [12] https://www.oapen.org/download?type=document&docid=1001901#page=426



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