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UTokyo Online Education: UTokyo Global FFDP 2022 Gabriel Hervas





Future Faculty Development Program

Video for DAY 3 Assessment & rubrics

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Rubric

Standards/ scale / levels of achievement

Instrument that makes explicit the **criteria** and **levels of** achievement/performance for a given element (a task, a learning process, a competence, a result, etc.).

Basically, it takes the form of a double-entry table.

	Excellent	Good	Developing
Structure	There was a strong sense of integration and a good structure overall.	The structure showed signs that efforts had been made to create a strong sense of integration overall.	Overall, it lacked a sense of integration, and individual topics seemed uncoordinated.
Level setting	Overall, the teaching content was appropriate for novices, at a level attainable with some extra effort.	On the whole, it was at a level that novices could reach with some extra effort, but some content was overly advanced or easy.	Overall, the content was overly advanced or overly easy for beginners.
Evocation of learning motivation	Students were interested and hoped to engage in further study of the lesson content independently.	Although the students listened with great interest and were satisfied with the content during the class, they would probably not engage in further study independently.	The teaching did not really stimulate interest in the lesson content.

Dimensions/ criteria



Rubric

• 1. Dimensions/Criteria:

- Connected to learning outcomes.
- Selective (what matters the most, avoiding a high volume)
- Comprehensible and univocal (unambiguous)
- If summative, each criteria can have different value

• 2. Standards/scale (levels of achievement):

- In general, top down.
- In general, four (pros & cons of uneven number)
- If summative, connect to a grading/rating scale
- Attentive language (e.g., exceeding, meeting, approaching, beginning)

• 3. Descriptors:

- Specific and explicit
- Clearly comparable (similar wording) and comprehensive levels (each level comprehends the lower)
- Different aspects of achievement to refer (quantity, frequency, intensity, quality, etc.)







- Adjustable for **different purposes** (see "how" in assessment):
 - Diagnostic: to diagnose or self-diagnose previous knowledge.
 - Formative: to assess a moment of the learning process & provide immediate feedback.
 - Summative: to grade by including a numeric and a qualitative scale.
- Offers guiding principles for **self-monitoring** of progress.
- Conveys **expectations** (goals) for a task.
- Incorporates "automatic" feedback (descriptors) and potential grading (faster)
- Sense of less "**subjectivity**" (arbitrariness).
- Can **involve** students in the design.





Rubric. Cons

• Cons? (from teachers' and students' perspectives). After some practice, you will determine them.





How to (a proposal)

1. Clear idea of task goals and learning outcomes.

2. Create a limit number of criteria to assess

3. Decide scale (number & grading if summative)

4. Prepare description (most comprehensive level)

5. Prepare description of other levels (comparatively)

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	-	2		
	Excellent	G	Developing	
Structure	The session was well structured with consistency.	The instructor seems to have made efforts to make the session consistent.	The session lacked consistency as a whole, and each topic seemed to be different.	
Level Settir s	The content was appropriate as a whole in the sense that it was set at the level "within one's reach" for beginners.	The content was mostly set at the level "within one's reach" for beginners, but some of the content was too advanced or too easy.	The content was too advanced or too easy for beginners.	
Stimulus for Learning	was inclined to learn more bout the session.	I was interested in the topic during the session and was satisfied with it, but I do n feel like learning mc about the topic by myself.	topic that appeared in the	

A rubric including comments and grading

	Capstone (10 to 9)	Milestone A (8,9 to 7)	Milestone B (6,9 to 5)	Benchmark (< 5)	Grade	
Criteria 1 (3p out of 10p)	•••	•••	•••	•••	9 (9x3=27)	
Comment						
Criteria 2 (3p out of 10p)	•••	•••	•••	•••	5 (5x3=15)	
Comment						
Criteria 3 (3p out of 10p)	•••	•••	•••	•••	7 (7x3=21)	
Comment						
Criteria 4 (1p out of 10p)	•••	•••	•••	•••	10 (10x1=10)	
Comment						
					73 (27+15+21+10)	

Comments, ideas, & doubts so far...

Take note of them, stop the video when needed.

Remember to take a break





- Angelo, T. A., & Cross, K. P. (1993). *Classroom assessment techniques*. Wiley.
- Barkley, E. F., & Major, C. H. (2015). Learning assessment techniques: A handbook for college faculty. Jossey-Bass.
- Barton, G. & Ryan, M.E. (2014). Multimodal approaches to reflective teaching and assessment in higher education. Higher Education Research & Development, 33(3), 409-424
- Beets, P. A. (2012). Strengthening morality and ethics in educational assessment through ubuntu in South Africa. Educational Philosophy and *Theory, 44*(sup2), 68-83.
- Biggs, J. & Tang, C. (2011). Teaching for Quality Learning at University. Buckingham: Open University Press/McGraw Hill.
- Birenbaum, M. & Feldman, R.A. (1998). Relationships between learning patterns and attitudes towards two assessment formats. Educational Research, *40(*1), 90-98.
- Boud, D., Ajjawi, R., Dawson, P. & Tai, J. (eds.) (2018). Developing evaluative judgment in Higher Education. Assessment for knowing and producing guality work. Routledge
- Bryan, C. & Clegg, K. (Eds.) (2006). Innovative assessment in higher education. Routledge.
- Cano, E. & Ion, G. (eds.) (2017). Innovative practices for Higher Education assessment and measurement. IGI Global.
- Carless, D. (2014). Exploring learning-oriented assessment processes. *Higher Education, 69*(6), 963–976.
- Carless, D. (2020). Longitudinal perspectives on students' experiences of feedback: A need for teacher-student partnerships. Higher Education Research & Development, 20(3), 425-438.
- Carless, D., & Boud, D. (2018). The development of student feedback literacy: Enabling uptake of feedback. Assessment & Evaluation in Higher Education, *43(*8), 1315–1325.
- Carless, D., Bridges, Ka Yuk Chan, Glofcheski (Eds.) (2017). Scaling up assessment for learning in higher education. Springer.
- Cobeña, G. T. B., García, L. A. P., Pin, S. C. S., & Montes, L. C. Z. (2021). The formative assessment as systematic practice in higher basic education students. International Research Journal of Management, IT and Social Sciences, 8(2), 132-140.
- Conejo, R., Guzmán, E. & Trella, M. (2016). The SIETTE Automatic Assessment Environment. International Journal of Artificial Intelligence in Education, 26, 270–292.



- Covington, M.V., von Hoene, L.M., & Voge, D. (2017). Life beyond grades: Designing college courses to promote intrinsic motivation. Cambridge University Press.
- Crossley, S. A., Kyle, K. & McNamara, D. S. (2016). The tool for the automatic analysis of text cohesion (TAACO): Automatic assessment of local, global, and text cohesion. *Behavior Research Methods, 48*, 1227–1237
- Evans, C. (2013). Making sense of assessment feedback in higher education. *Review of educational research, 83*(1), 70-120.
- Evans, C., & Waring, M. (2011a). Exploring students' perceptions of feedback in relation to cognitive styles and culture. *Research Papers in Education, 26*, 171–190.
- Evans, C., & Waring, M. (2011b). Student teacher assessment feedback preferences: The influence of cognitive styles and gender. *Learning and Individual Differences, 21*, 271–280.
- Evans, C., & Waring, M. (2011c). Enhancing feedback practice: A personal learning styles pedagogy approach. In S. Rayner & E. Cools (Eds.), *Style differences in cognition, learning, and management: Theory, research and practice* (pp. 188–203). Routledge.
- Fink, A. (2003). The survey handbook. Sage.
- Fisher, D., & Frey, N. (2014). Checking for understanding: Formative assessment techniques for your classroom (2nd Ed.). ASCD.
- Fletcher, R.B., Meyer, L.H., Anderson, H., Johnston, P., & Rees, M. (2012). Faculty and Students Conceptions of Assessment in Higher Education. *Higher Education*, 64(1), 119-133.
- Harks, B., Rakoczy, K., Hattie, J., Besser, M., & Klieme, E. (2014). The effects of feedback on achievement, interest and self-evaluation: the role of feedback's perceived usefulness. *Educational Psychology*, 34(3), 269-290.
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of educational research, 77*(1), 81-112.
- Gierl, M. J., Bulut, O., Guo, Q., & Zhang, X. (2017). Developing, Analyzing, and Using Distractors for Multiple-Choice Tests in Education: A Comprehensive Review. Review of Educational Research, 87(6), 1082–1116.
- Guba, E. G., & Lincoln, Y. S. (1994). Competing Paradigm in Qualitative Research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105–117). Sage.

- Guba, E. G., & Lincoln, Y. S. (1990). *Fourth generation evaluation* (2nd Ed.). Sage.
- Gysling, J. (2016). The historical development of educational assessment in Chile: 1810–2014. Assessment in Education: Principles, Policy & Practice, 23(1), 8-25.
- Ion, G., Cano-García, E., & Fernández-Ferrer, M. (2017). Enhancing self-regulated learning through using written feedback in higher education. International Journal of Educational Research, 85, 1–10. <u>https://doi.org/10.1016/j.ijer.2017.06.002</u>
- Jones, I., & Wheadon, C. (2015). Peer assessment using comparative and absolute judgement. *Studies in Educational Evaluation, 47*, 93-101.
- Jonsson, A. (2013). Facilitating productive use of feedback in higher education. Active Learning in Higher Education, 14, 63–76.
- Knight, S., Gibson, A., & Shibani, A. (2020). Implementing learning analytics for learning impact: Taking tools to task, *The Internet and Higher Education,* 45. https://doi.org/10.1016/j.iheduc.2020.100729
- Lincoln, Y., & Guba, E. (1985). Naturalistic inquiry. Sage.
- Mahabeer, P., & Pirtheepal, T. (2019). Online formative assessment tools: lecturers' experiences of using Moodle at a university in South Africa. Journal of Educational Studies, 18(1), 43-63
- Manzi, J., García, M. R., & Taut, S. (2021). Validity of Educational Assessments in Chile and Latin America. Springer.
- Meir, Eli; Wendel, Daniel; Pope, Denise S.; Hsiao, Ling; Chen, Deborah; Kim, Kerry J. (2019). Are intermediate constraint question formats useful for evaluating student thinking and promoting learning in formative assessments?. *Computers & Education, 141.*
- Newman, L. R., Roberts, D. H., & Frankl, S. E. (2019). Twelve tips for providing feedback to peers about their teaching. *Medical teacher, 4*1(10), 1118-1123.
- Nilson, L. B. (2015). Specifications grading. Restoring rigor, motivating students and saving faculty time. Stylus.
- Oakley, B., Rogowsky, B., & Sejnowski, T. J. (2021). *Uncommon sense teaching.* TarcherPerigee.
- Ochoa, X., & Dominguez, F. (2020). Controlled evaluation of a multimodal system to improve oral presentation skills in a real learning setting. *British Journal of Educational Technology, 51(5*), 1615-1630.
- Ossenberg, C., Henderson, A., & Mitchell, M. (2019). What attributes guide best practice for effective feedback? A scoping review. *Advances in Health Sciences Education*, 24(2), 383-401.
- Pereira, D., Flores, A., & Niklasson, L. (2016). Assessment revisited: a review of research in Assessment and Evaluation in Higher Education. Assessment & Evaluation in Higher Education, 41(7),1008- 1032.



- Pinheiro Cavalcanti, A., et al. (2021). Automatic feedback in online learning environments: A systematic literature review. *Computers and Education: Artificial Intelligence, 2*. <u>https://doi.org/10.1016/j.caeai.2021.100027</u>
- Ponce, H. R., Mayer, R. E., Figueroa, V. A., & López, M. J. (2018). Interactive highlighting for just-in-time formative assessment during whole-class instruction: effects on vocabulary learning and reading comprehension. *Interactive Learning Environments, 26(*1), 42-60.
- Pryor, J., & Lubisi, C. (2002). Reconceptualising educational assessment in South Africa—testing times for teachers. *International Journal of Educational Development, 22*(6), 673-686.
- Radianti, J., Majchrzak, T. A., Fromm, J., & Wohlgennant, I. (2020). A Systematic Review of Immersive Virtual Reality Applications for Higher Education: Design Elements, Lessons Learned, and Research Agenda. *Computers & Education, 147*.
- Ramani, S., Könings, K. D., Ginsburg, S., & van der Vleuten, C. P. (2019). Twelve tips to promote a feedback culture with a growth mind-set: Swinging the feedback pendulum from recipes to relationships. *Medical teacher, 41*(6), 625-631.
- Rohrer, D., Dedrick, R. F., & Stershic, S. (2015). Interleaved practice improves mathematics learning. *Journal of Educational Psychology, 10*7 (3), 900-908.
- Simpson-Beck, V. (2011). Assessing classroom assessment techniques. Active Learning in Higher Education, 12(2), 125–132.
- Sorcinelli, M.D. (2007). Faculty Development: The Challenge Going Forward. *Peer Review, 9(*4), 4-9.
- Steen-Utheim, A., & Hopfenbeck, T. N. (2018). To do or not to do with feedback: A study of undergraduate students' engagement and use of feedback within a portfolio assessment design. Assessment & Evaluation in Higher Education, 44(1), 80–96.
- Stobart, G. (2010). Making a difference: Evaluating the impact of innovations in assessment. In J. Gardner, W. Harlen, L. Hayward and G. Stobart (Eds.), Developing teacher assessment (pp. 141-154). Open University Press/McGraw-Hill.
- Struyven, K., Dochy, F., & Janssens, S. (2005). Students' perceptions about evaluation and assessment in higher education: a review. Assessment & Evaluation in Higher Education, 30(4), 325–341.
- Swan, A., Rashid, H., Meka, J., Amiel, J., & Pluta, W. (2021). Twelve tips for embedding assessment for and as learning practices in a programmatic assessment system. *Medical Teacher, 4*3(3), 300-306.



- Tsai, Y.-S., et al. (2018). Supporting higher education to integrate learning analytics. Research report November 2018. Available at https://sheilaproject.eu/wp-content/uploads/2018/11/SHEILA-research-report.pdf
- van der Leeuw, R. M., & Slootweg, I. A. (2013). Twelve tips for making the best use of feedback. *Medical teacher, 35(*5), 348-351.
- Vásquez, A., Nussbaum, M., Sciarresi, E., Martínez, T., Barahona, C., & Strasser, K. (2017). The impact of the technology used in formative assessment: The case of spelling. *Journal of Educational Computing Research*, 54(8), 1142-1167.
- Wheadon, C., de Moira, A. P., & Christodoulou, D. (2020a). *The classification accuracy and consistency of comparative judgement of writing compared to rubric-based teacher assessment*. Retrieved at https://osf.io/preprints/socarxiv/vzus4/download
- Wheadon, C., Barmby, P., Christodoulou, D., & Henderson, B. (2020b). A comparative judgement approach to the large-scale assessment of primary writing in England. Assessment in Education: Principles, Policy & Practice, 27(1), 46-64.
- Winstone, N. E., & Carless, D. (2020). *Designing effective feedback processes in higher education*. Routledge.
- Winstone, N. E., Nash, R. A., Parker, M., & Rowntree, J. (2017). Supporting learners' agentic engagement with feedback: A systematic review and a taxonomy of recipience processes. *Educational Psychologist*, *52(*1), 17-37.



Web-references/documents with ideas

• Classroom Assessment Activities (CATs):

https://facultyinnovate.utexas.edu/cats

https://facultyinnovate.utexas.edu/sites/default/files/ChecksforLearning-DuringInstruction.pdf

https://vcsa.ucsd.edu/_files/assessment/resources/50_cats.pdf

https://teaching.berkeley.edu/resources/course-design-guide/design-effective-assessments/alternatives-traditional-testing

https://www.cmu.edu/teaching/assessment/assesslearning/CATs.html

https://cft.vanderbilt.edu/guides-sub-pages/cats/

• Online exams:

https://academic-senate.berkeley.edu/issues/coronavirus/best-practices-remote-examinations

• Getting feedback from students

https://bokcenter.harvard.edu/getting-feedback



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Thank you

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