

# Generative feedback processes in integrated learning ecosystem for higher education

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# How to introduce a process of innovation in university teaching with small steps?

Some reflections and ideas

# About innovation: in which context are we?

A patchy situation:

- A lot of experimentation and research in didactics fields, in theory
- Few cases of innovation in the practices
- The «old style» lesson prevails

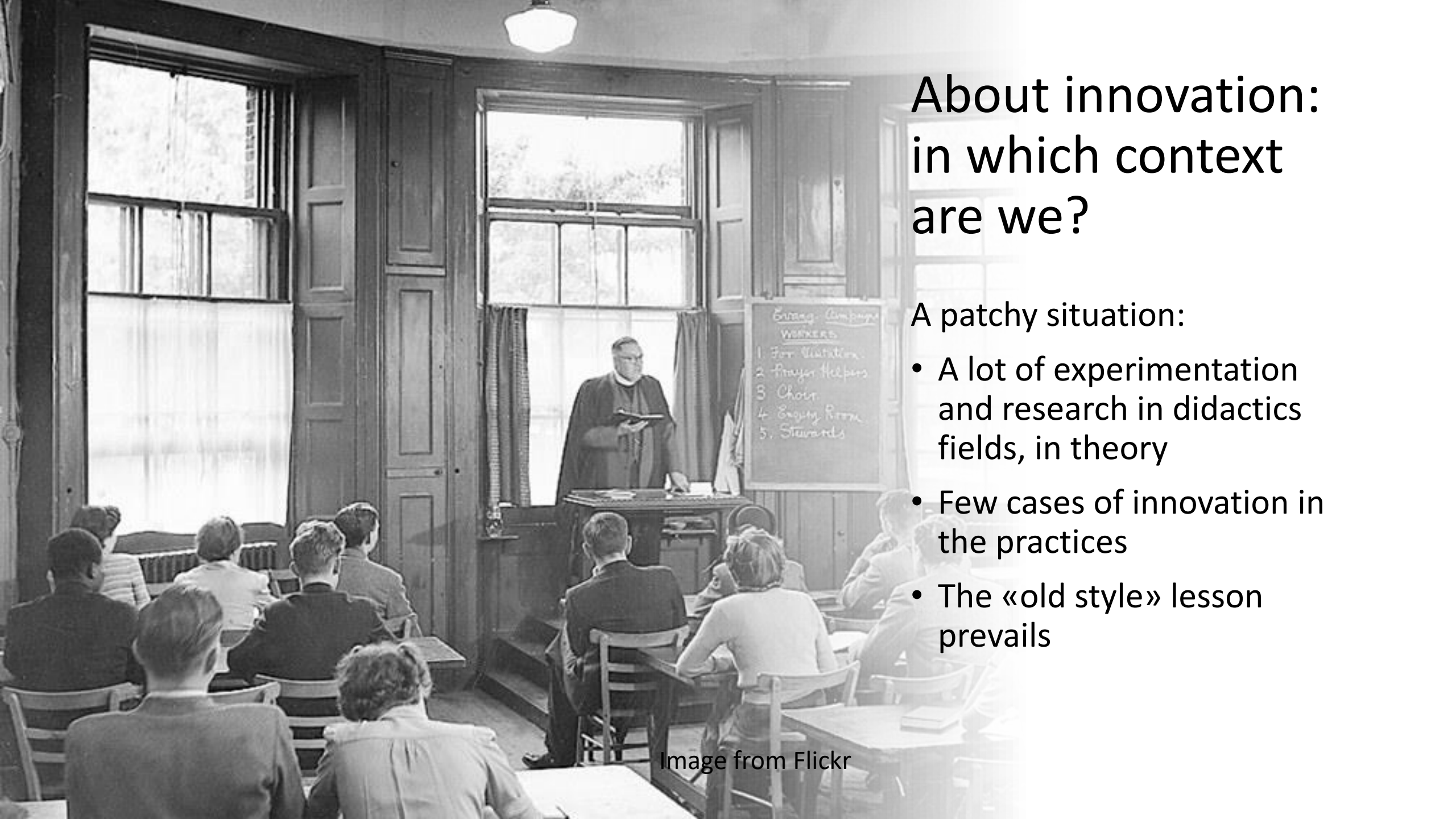


Image from Flickr

# After the pandemic

The long-awaited  
return to  
normality

“Fear of the digital”: remembering the  
online lessons

Traditional teaching postures

Resistance to educational innovation  
(classified by Marguerite Altet)

In  
addition:

Logistic problems

# KEYWORDS

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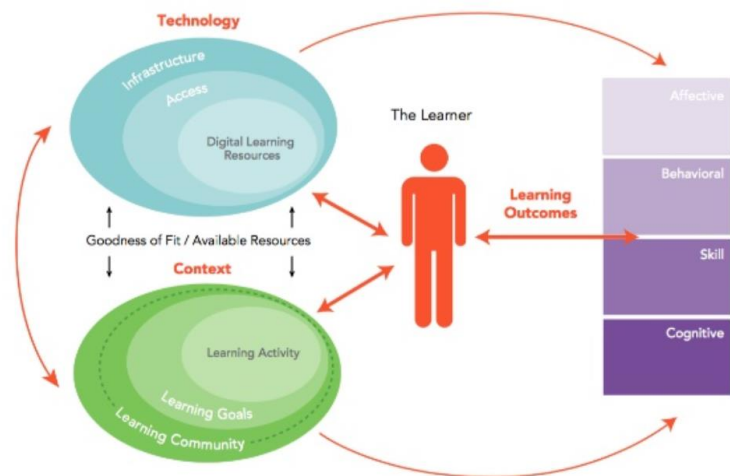
## Innovating step by step

- Integrated Learning Ecosystem
- Sustainability for professors
- Significance for students
- Interaction at the centre (in an enactivist perspective)

# Logics

## ECOSYSTEMIC LOGIC [linked to the learning environment]

- Mutual transformation
- Interaction in the centre
- Integrating the students' inner world to the ecosystem



## SUSTAINABILITY [linked to the change of the Professor's attitude]



Overcoming the old-style lesson



The on-going training in media education and new media literacy



The digital divide and the technology availability




Large classroom – small classroom

# Which proposal can we make to accompany the transformation?

- Learning design where the **feedback** process is pivotal in order to trigger some active didactics paths: interactive and enactive logics
- Favouring the transition towards a horizontal blended re-questioning the classroom spaces and timings: the **hybridization** logic
- Supporting the action through **smart devices**, which can be used either in a “pen-and-paper” or a digital mode, in situations of either small or large classroom: microteaching – microlearning logic





# Feedback as the basic connection of the didactic action

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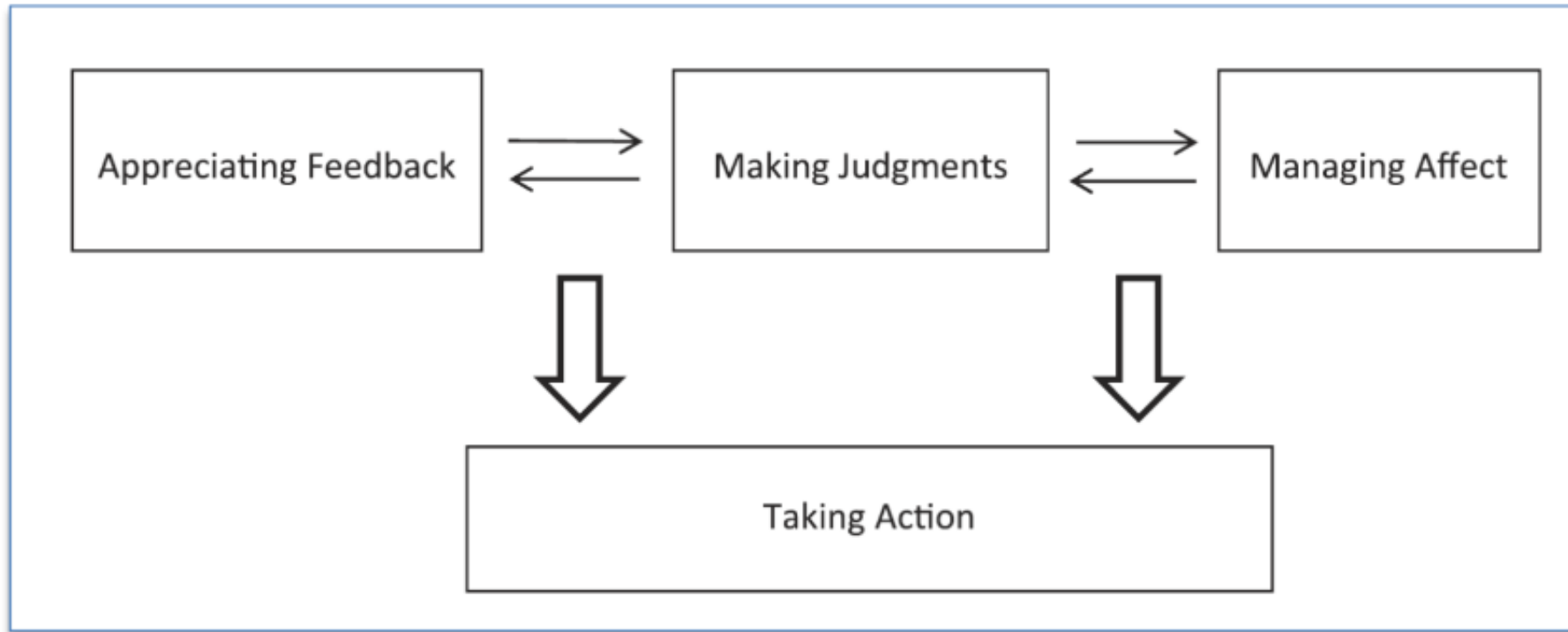
The literature on feedback in university teaching (Hattie & Timperley, 2007; Boud & Molloy, 2013; Laici & Pentucci, 2019) agrees on the positive effects of this practice on cognitive, intrapersonal, and interpersonal dimensions (Fishman & Dede, 2017) of the teaching and learning process. Feedback generates active student participation and triggers recursive practices between students and teachers (van der Meer & Dowson, 2018). As Dawson and colleagues (2019) emphasize, research after 2010 describes feedback as a student-driven process rather than a teacher-driven one, involving all agents, human and material, in the educational ecosystem (Jeladze et al., 2017), and enabling students to use the information gained to bring about changes in their learning approaches. Today, feedback is seen as a conversational and transformative process, influencing the teacher's design and the ecosystem, from an enactive perspective (Laurillard, 2012; Rossi et al., 2018).



Feedback loop is the «plot»

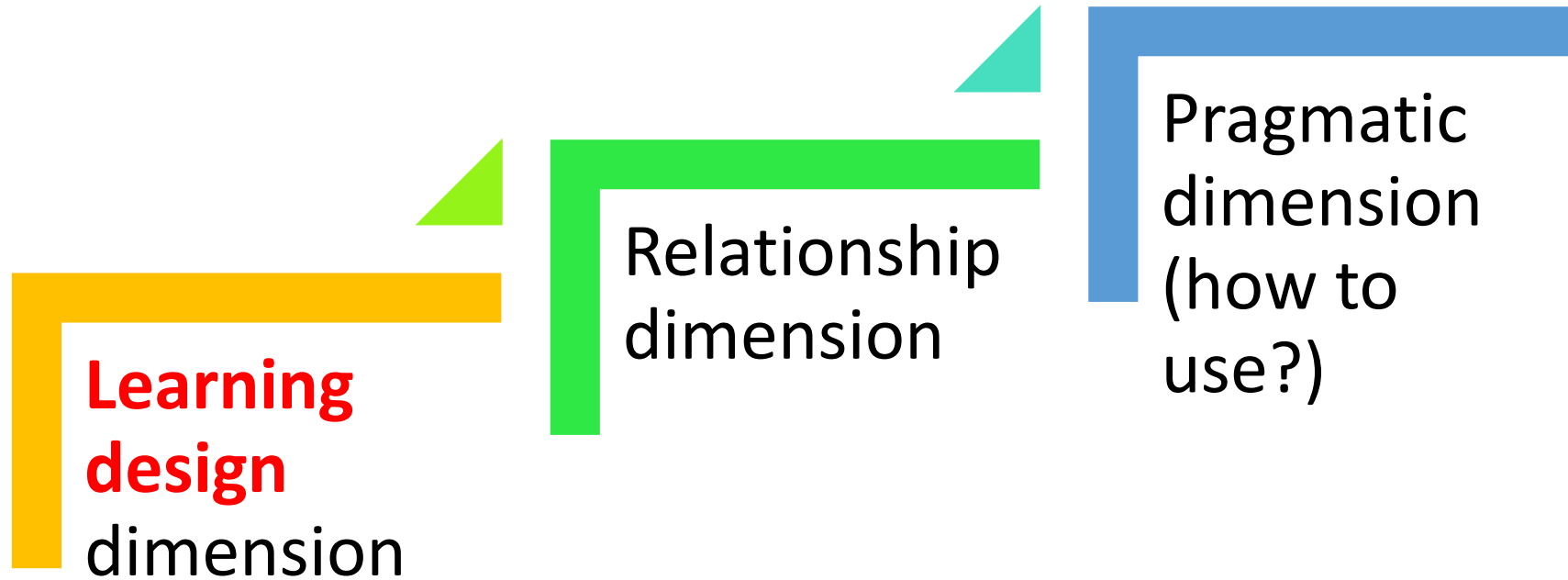


# The student's feedback literacy



Carless & Boud, 2018, p. 1319

# The teacher's feedback literacy



# Small tools for feedback literacy

01

Integrating **small tools** in the practices, step by step

- Following some examples...

02

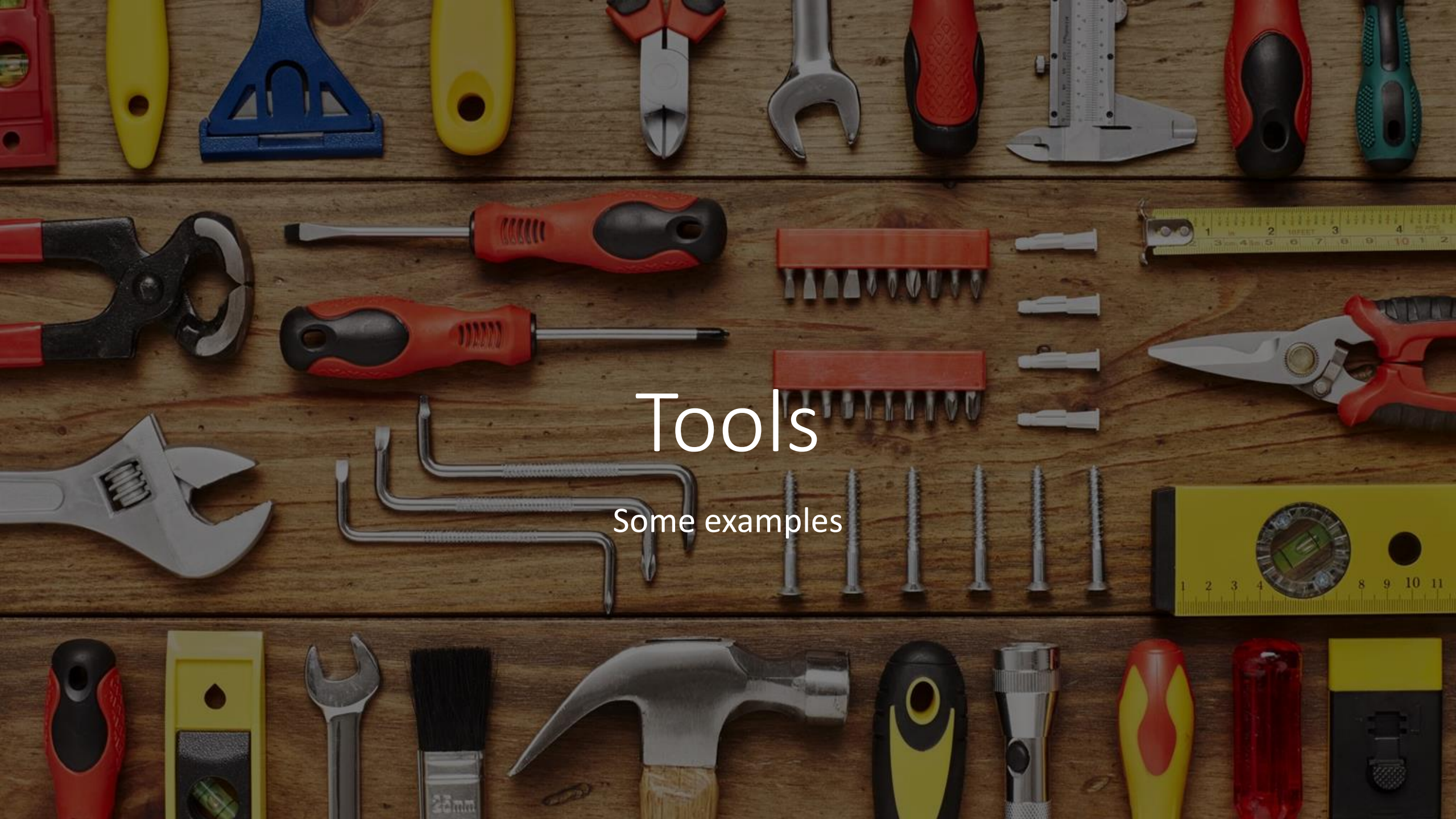
Working together (co-design)

03

Using technologies both didactic-born and generalist to manage large classroom situations

04

Using collaborative strategies to improve peer feedback processes



# Tools

Some examples



# One minute paper

1. What are the two [three, four, five] most significant [central, useful, meaningful, surprising, disturbing] things you have learned during this session?

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2. What question(s) remain uppermost in your mind?

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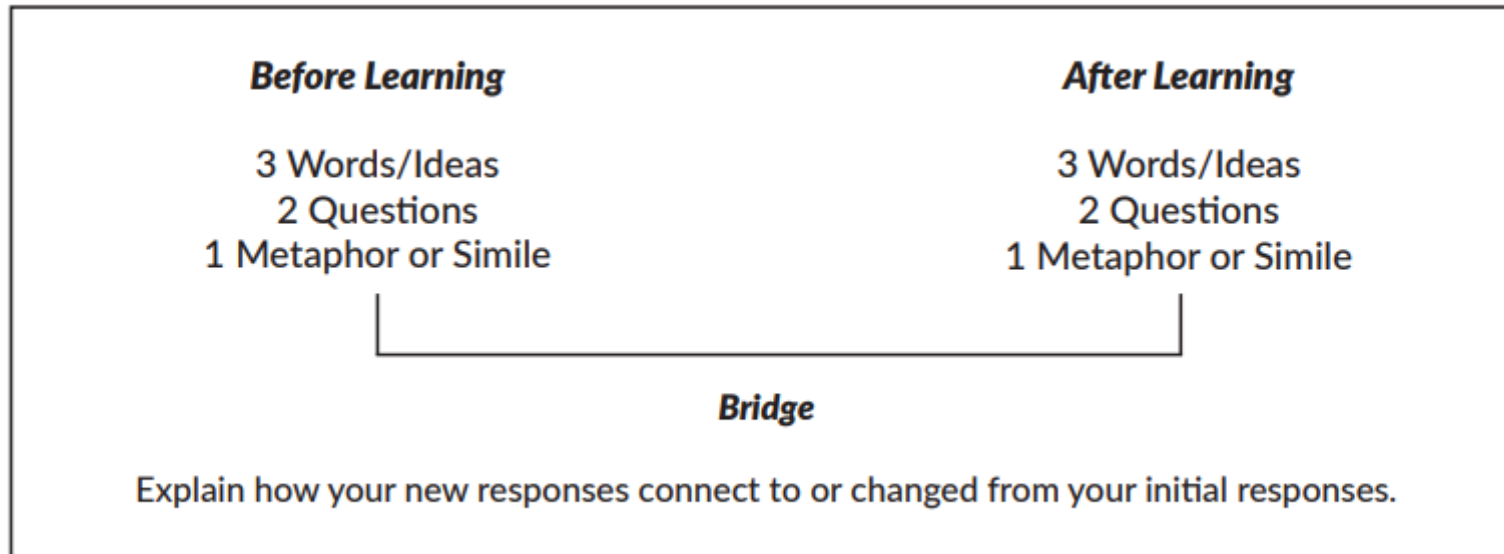
3. Is there anything you did not understand?

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WE CAN DO IT: <https://www.menti.com/> CODE: 21854004

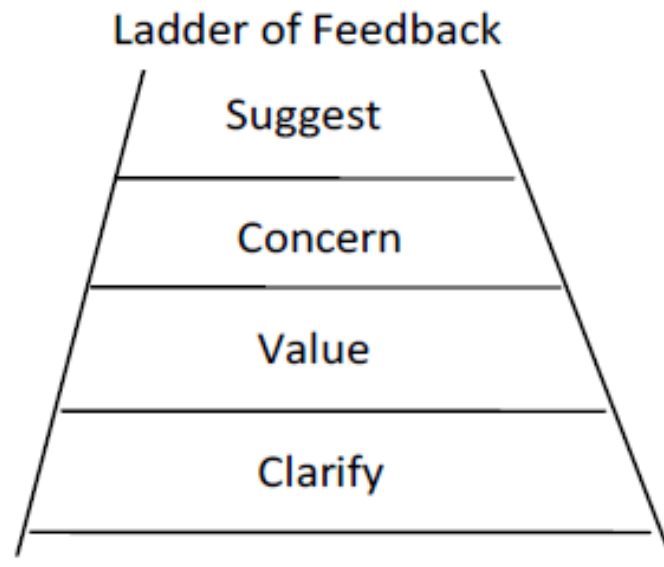


# 3-2-1 bridge (a thinking routine)





# Ladder of feedback



 HARVARD  
GRADUATE SCHOOL OF EDUCATION

- <http://www.pz.harvard.edu/resources/ladder-of-feedback>
- <http://www.makinglearningvisibleresources.org/ladder-of-feedback-see-supporting-learning-in-groups-in-the-classroom.html>

Peer review and peer  
feedback: an  
experimentation



# Purposes of experimentation

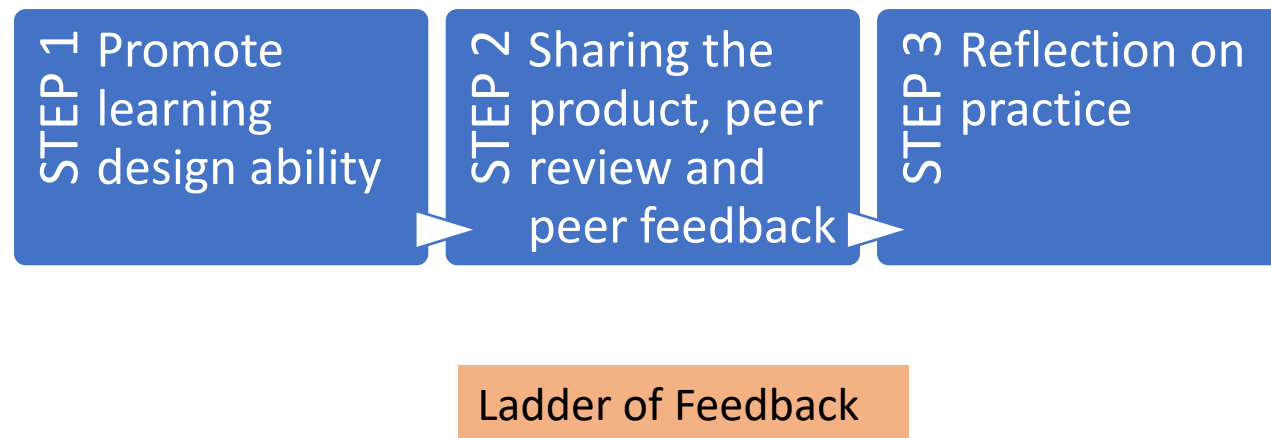


- Activate successive **feedback loops** (Carless, 2019), first between teacher and students, and then among peers, to achieve an internal process of self-awareness, namely an incorporation of reflexivity about one's own practices.
- Promote **feedback literacy** (Carless & Boud, 2019) in the student through experimentation in practice.

# The path

Peer feedback and peer review:

- A large class: 145 students + a small class: 31 students
- 2 courses (Pedagogic fields) in 2 Universities
- The strategies and feedback devices (according to the learning-centered approach) were used throughout the course



# Questions

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What perceptions do students develop regarding feedback and its effects on their learning process?

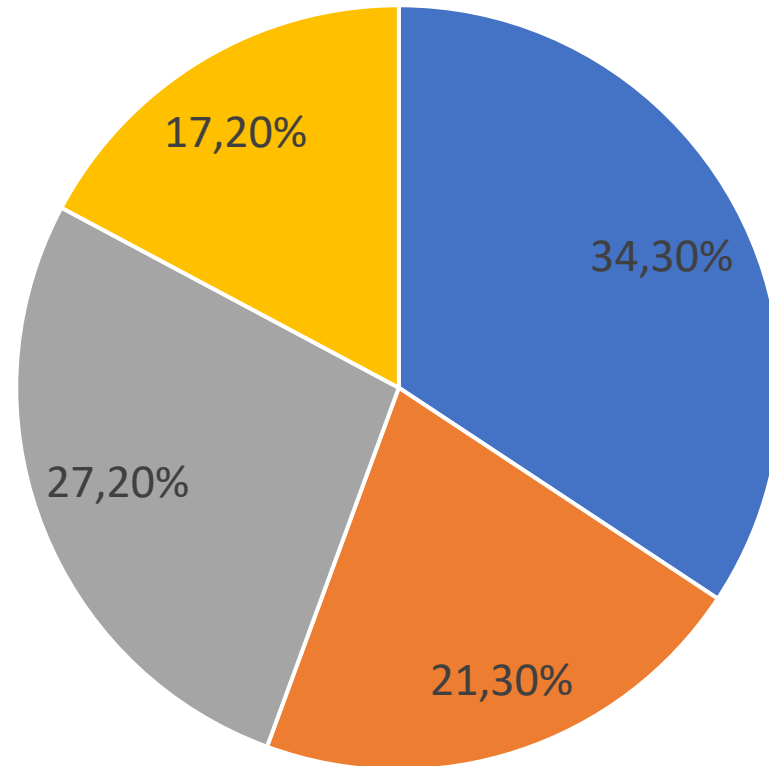


What kind of **awareness** can students develop about their learning through the peer feedback device?



Can experimenting with **feedback and peer feedback** practices and **reflecting** on these practices foster the development of **student feedback literacy**?

## Peer feedback or teacher feedback?



- peer-feedback
- feedback docente
- uguale efficacia
- non esprime preferenza

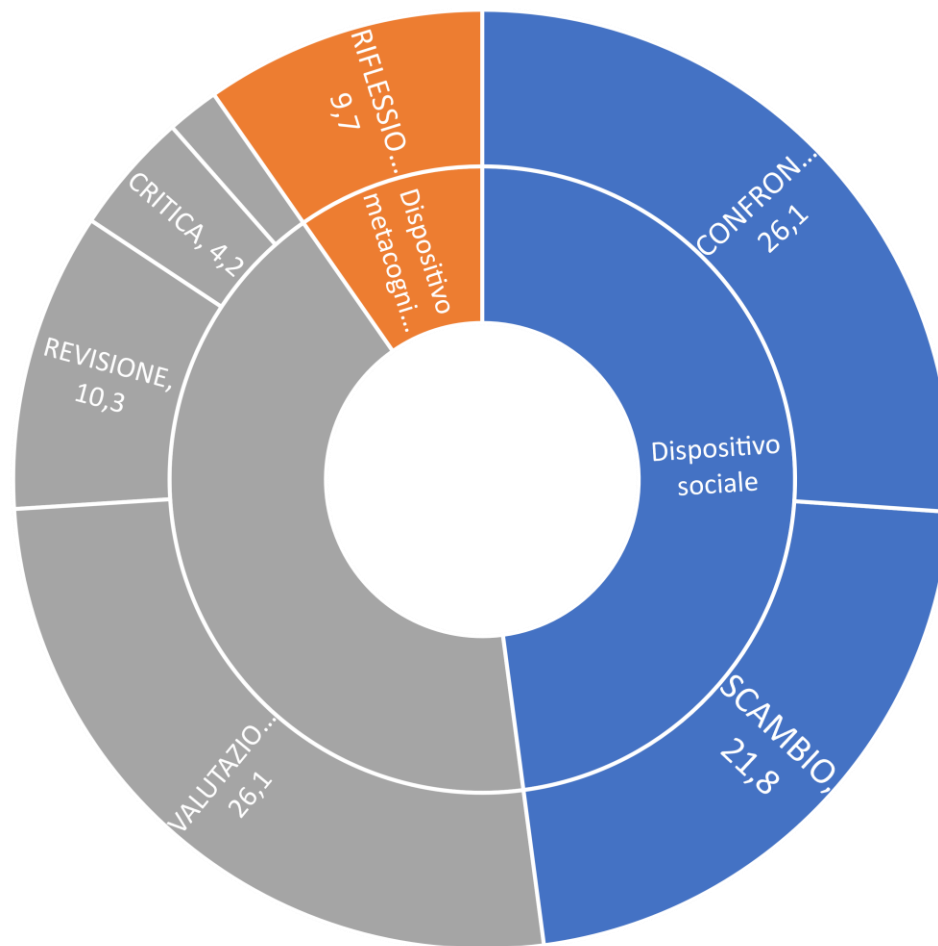
## Feedback from the teacher



## Peer Feedback



## Peer Feedback: role and usefulness in the perception of the students



- Dispositivo sociale
- Dispositivo metacognitivo
- Dispositivo valutativo e ristrutturativo



Providing feedback  
to reflect on his own  
work

- 96,4% (N. 163) of students says that providing feedback to the peers they can re-think to their design work

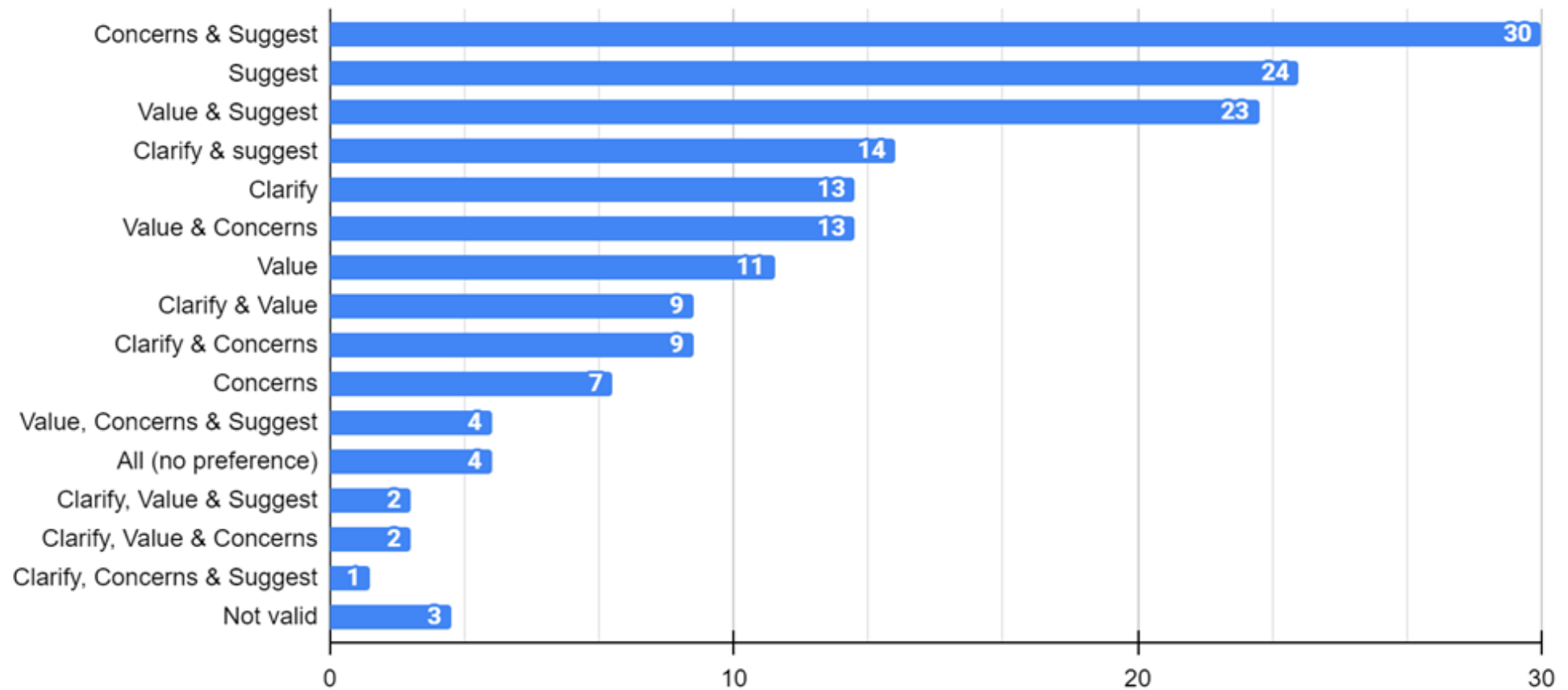
<b>Do you think you have learnt more from providing or from receiving feedback?</b>				
	N	%	%	%
receiving	57	33,7%	33,7%	33,7%
providing	62	36,7%	36,7%	70,4%
Both	46	27,2%	27,2%	97,6%
Does not answer	4	2,4%	2,4%	100,0%

# Comparison, self-assessment, correction (words of the students)

- *During the process of providing feedback to my colleagues, I automatically gave feedback on the work done within my own group as well. If I noticed a factor in other groups that were not very consistent with the design, I immediately asked myself and my teammates if we had made the same mistake. This is because it's easy to judge and evaluate the work of other people, but can we recognize the errors in our own work? Therefore, this task served us primarily to understand what possible mistakes were made by our own group.*



# Providing feedback through «Ladder of Feedback»

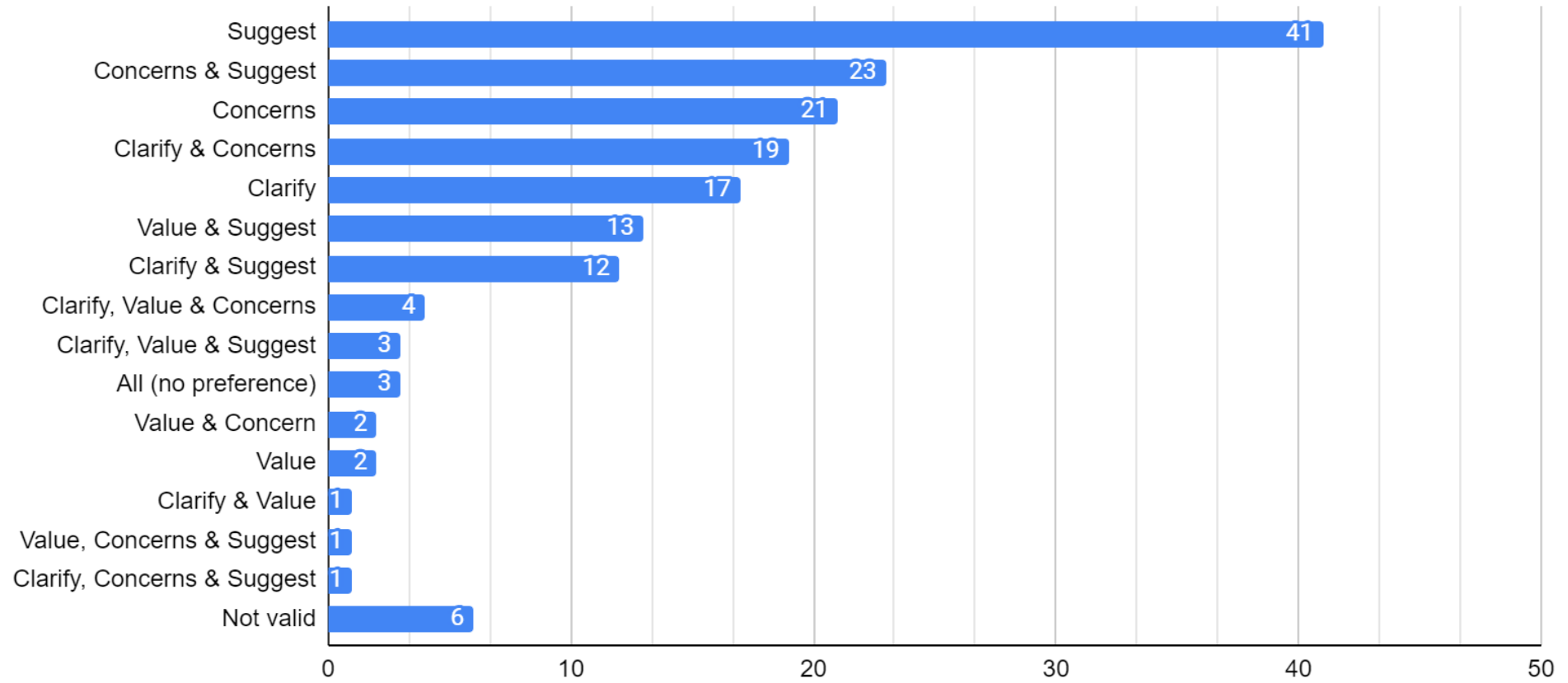


## **Concerns & Suggest**

- *In my opinion, there are two steps in the Ladder of Feedback that are particularly useful: expressing concerns and providing suggestions. The first step is important because it allows for the explicit identification of critical aspects in the other group's work that can be improved. The second step is valuable because it enables feedback to be both evaluative and formative. By providing suggestions, the receiving group can reflect on how to enhance their own work based on the feedback received from the other group.*

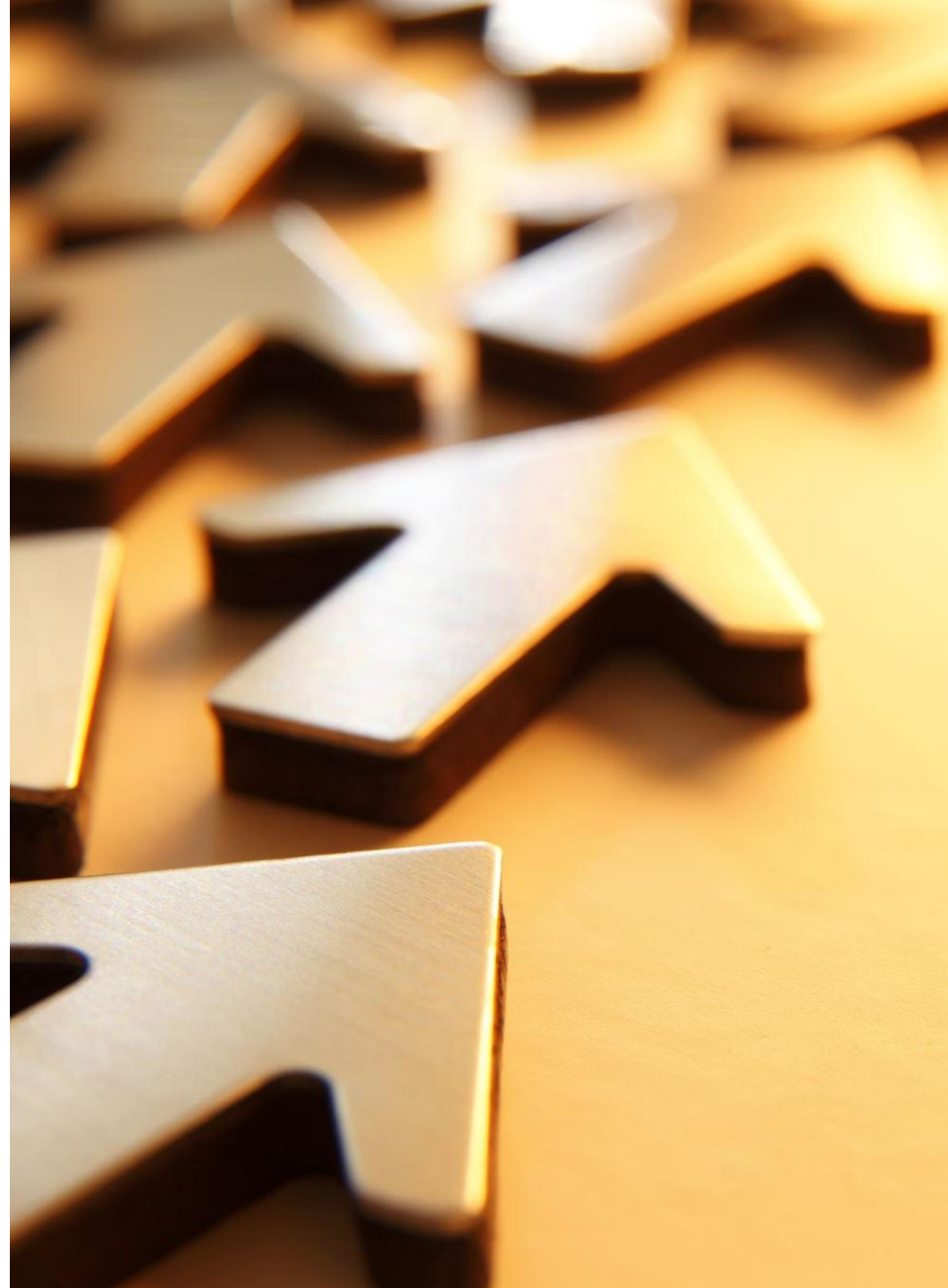


# Receiving feedback through «Ladder of Feedback»



## ***Suggest***

- *They were all different, allowing us to proceed step by step in reviewing the work.*
- *I appreciated the "suggest" section because I believe it's important for colleagues not to judge but rather provide opinions that can serve as points for reflection and discussion for improvement.*
- *I find the suggestions from other groups to be very useful because they are not just corrective but a way of communicating to help, without being critical.*



# Why did students like peer feedback?

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comparison for self-assessment and correction	84	51,5%
reflection on specific aspects of their work	60	36,8%
differences between design works	12	7,4%
positive and critical aspects analysis	7	4,3%

## In their own words...

- *When I was processing feedback for my colleagues, I automatically gave feedback on my work with my group. If I perceived in the other groups a factor not very consistent with the design, immediately I asked myself and my companions if by chance we had not made the same mistake. This is because it is easy to judge and evaluate the work of other people, but then we can recognize the mistakes of our own work? So this work has served us above all to go to understand what were also the possible errors made by our group*





# CONCLUSIONS

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- **Feedback**, within an educational design, must be a structured, structuring, and intentional device. Adequately supported by validated tools or protocols constructed from practice, feedback can guide students in assuming a genuine self-evaluative, reflective, and regulatory posture.
- Simple tools for designing reflective and metacognitive feedback activities, used **recursively** during courses, can help teachers change their teaching **posture**, promoting student interaction and engagement. They require little time and offer numerous benefits.
- **Innovation** doesn't necessarily rely on complex and highly digitized systems, at least in the beginning. It can start step by step. What the teacher needs is a strong competence in **learning design** and a willingness to reflect on their teaching practice in order to restructure and improve it.

# References

- Angelo T.A. & Cross K.P. (1993). *Classroom Assessment Techniques*, 2nd ed. San Francisco: Jossey-Bass.
- Black P. & William D. (2009). Developing the Theory of Formative Assessment. *Educational Assessment, Evaluation and Accountability*, 21, 5-31.
- Brown E., & Glover C. (2006). Evaluating Written Feedback. In C. Bryan and K. Clegg (Eds.), *Innovative Assessment in Higher Education* (pp. 81-91). London: Routledge.
- Brown E., Gibbs G., & Glover C. (2003). Evaluation Tools for Investigating the Impact of Assessment Regimes on Student Learning. *Bioscience Education*, 2(1), 1-7.
- 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. & Chan K. (2017). Managing dialogic use of exemplars, *Assessment & Evaluation in Higher Education*, 42:6, 930-941.
- Carless D. & Winstone N. (2020). Teacher feedback literacy and its interplay with student feedback literacy, *Teaching in Higher Education*.
- Carless D. (2019) Feedback loops and the longer-term: towards feedback spirals, *Assessment & Evaluation in Higher Education*, 44:5, 705-714.
- Carless, D. (2015). Exploring learning-oriented assessment processes. *High Educ* 69, 963–976.
- Dirkx J., & Serbati A. (2017). Promoting faculty professional development: strategies for individual and collective reflection towards institutional change. In Felisatti, E., Serbati, A. (Eds). *Preparare alla professionalità docente e innovare la didattica universitaria*. Milano: F. Angeli, 21-38.

# References

- Gibbs G., Simpson C., & Macdonald R. (2003). Improving student learning through changing assessment – a conceptual and practical framework. Paper presented at the European Association for Research into learning and Instruction, Padova, Italy.
- Grion V., Serbati A. (2019). Valutazione sostenibile e feedback nei contesti universitari. Prospettive emergenti, ricerche e pratiche. Pensa Multimedia: Lecce.
- Grion V., Serbati A., Tino, C. & Nicol D. (2018). Ripensare la teoria della valutazione e dell'apprendimento all'università: un modello per implementare pratiche di peer review. ITALIAN JOURNAL OF EDUCATIONAL RESEARCH, (19), 209–226.
- Hattie J., & Timperley H. (2007). The Power of Feedback. Review of Educational Research, 77(1), pp. 81-112.
- Hughes G., Smith H., & Creese B. (2015). Not seeing the wood for the trees: developing a feedback analysis tool to explore feed forward in modularized programmes. Assessment & Evaluation in Higher Education, 40(8), 1079-1094.
- Lipnevich AA and Panadero E (2021) A Review of Feedback Models and Theories: Descriptions, Definitions, and Conclusions. Front. Educ. 6:720195. doi: 10.3389/educ.2021.720195
- Lang J.M. (2016). Small Teaching: Everyday Lessons from the Science of Learning. San Francisco: Jossey-Bass.
- Laici C. (2021). Il feedback come pratica trasformativa nella didattica universitaria. FrancoAngeli.
- Molloy E., Boud D. & Henderson M. (2020). Developing a learning-centred framework for feedback literacy, Assessment & Evaluation in Higher Education, 45:4, 527-540.
- Nicol D., & MacFarlane-Dick D. (2006). Formative Assessment and Self-regulated Learning: A Model and Seven Principles of Good Feedback Practice. Studies in Higher Education 31(2), pp. 199-218.
- Nicol D., Thomson A. & Breslin C. (2014). Rethinking feedback practices in higher education: a peer review perspective, Assessment & Evaluation in Higher Education, 39:1, 102-122.

# References

- Orsmond P., & Merry S. (2011). Feedback Alignment: Effective and Ineffective Links between Tutors' and Students' Understanding of Coursework Feedback. *Assessment & Evaluation in Higher Education* 36(2), 125-126.
- Panadero, E. A. Lipnevich, Anastasiya (2022) A review of feedback models and typologies: Towards an integrative model of feedback elements, *Educational Research Review*, Volume 35, 100416, ISSN 1747-938X, <https://doi.org/10.1016/j.edurev.2021.100416>.
- Sadler R. (1998) Formative Assessment: revisiting the territory, *Assessment in Education: Principles, Policy & Practice*, 5:1, 77-84.
- Serbati A., & Grion V. (2019). IMPROVe: Six research-based principles to realise peer assessment in educational contexts. *Form@re*, 19(3), 89-105.
- Serbati A., Grion V., & Fanti M. (2019). Caratteristiche del peer feedback e giudizio valutativo in un corso universitario blended. *ITALIAN JOURNAL OF EDUCATIONAL RESEARCH*, 115-138.
- Serbati A., Grion V., & Fanti M. (2019). Caratteristiche del peer feedback e giudizio valutativo in un corso universitario blended. *ITALIAN JOURNAL OF EDUCATIONAL RESEARCH*, 115-138.
- Sutton P. (2012). Conceptualizing feedback literacy: knowing, being, and acting, *Innovations in Education and Teaching International*, 49:1, 31-40.
- Winstone N. & Carless D. (2019). *Designing Effective Feedback Processes in Higher Education. A Learning-Focused Approach*. London: Routledge.



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