

## Chapter 5

# Peer Feedback Activities in Smart Education

### ABSTRACT

*New ways of communication and peer feedback activities provide several opportunities for student-centered collaborative learning in smart higher education. This chapter increases the knowledge about how collaborative peer feedback processes can support student-centered learning toward higher-order thinking and critical ability in smart higher education. Methodically, various types of feedback are illustrated based on review of selected articles from previous research. The qualitative empirical data of feedback processes (N=155) among 22 students was grounded on criteria and guidance on feedback for collaborative learning. Theoretically, the analysis of excerpts is based on a feedback model and an assessment cycle to identify the gap between the main process, self-regulated and self-directed actions, and the self as a person (i.e., what is understood and what is aimed to be understood). The results demonstrate that peer feedback provides one of the most critical and self-directed impacts on student-centered collaborative learning and higher-order thinking.*

## **BACKGROUND**

Peer feedback between students and feedback from teachers is one of the most important skills in teaching that improves students' collaborative learning and outcomes (Hattie & Timperley, 2007). In a broad sense the whole process is including how students receive and use the feedback for their reflecting back on their own work and future process, but also give other students concrete peer feedback. Thus, it is not just about the formal response-giving activity (Dysthe, Lillejord, Vines & Wasson, 2010), instead more knowledge that leads to greater opportunities for learning, improved challenges, more self-directed and self-regulated learning processes about what exists and what is not understood (Hattie & Timperley, 2007).

This chapter increases the knowledge about in what way collaborative peer feedback processes can be a tool for self-directed and motivated student-centered learning in a resource-enriched learning environment with technology-embedded tools in smart higher education. The following questions are addressed:

- In what way can teachers a) design and b) use different feedback activities and wearable tools that are appropriate for student-centered learning and active participation?
- How do the students experience the feedback activities and the wearable tools for their learning?
- In what way can the feedback activities and tools be analyzed comparing to the students' performance?

'Smart learning' refers to wisdom bounding together the ability of using and motivating self-directed learning, knowledge building, problem-solving, critically reflecting, collaborating and evaluating different circumstances with resource-enriched, and technology-embedded tools, as with written e-feedback or in face-to-face, F2F-webinars / conferencing in a mobile setting at distance (Hwang, 2014; Spector, 2014; Zhu, Yu & Riezebos, 2016).

Feedback ability is related to a dialogic interaction with responses to a specific written text, production or presentation in order for the recipient to become a more conscious writer, producer or presenter (Alvarez, Espasa, A. & Guasch, 2011). Specifically, makes feedback online (e-feedback) the interaction process transparent for students and teachers, as well as acts as a mediated artifact or a tool for the joint activities between the groups of students. Another practical benefit of implementing peer feedback between

29 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: [www.igi-global.com/chapter/peer-feedback-activities-in-smart-education/258018](http://www.igi-global.com/chapter/peer-feedback-activities-in-smart-education/258018)

## Related Content

---

### Digital Badge Use in Specific Learner Groups

Jacob H. Askerothand Timothy J. Newby (2020). *International Journal of Innovative Teaching and Learning in Higher Education* (pp. 1-15).

[www.irma-international.org/article/digital-badge-use-in-specific-learner-groups/245769](http://www.irma-international.org/article/digital-badge-use-in-specific-learner-groups/245769)

### Faculty Videos of Resilience Narratives at Two Institutions: Residency Resilience Skills Program Innovation

Hedy S. Waldand Brenda Bursch (2020). *International Journal of Innovative Teaching and Learning in Higher Education* (pp. 16-24).

[www.irma-international.org/article/faculty-videos-of-resilience-narratives-at-two-institutions/245770](http://www.irma-international.org/article/faculty-videos-of-resilience-narratives-at-two-institutions/245770)

### Smartphone-Based Virtual Reality as an Immersive Tool for Teaching Marketing Concepts

Haithem Zourrig (2021). *International Journal of Innovative Teaching and Learning in Higher Education* (pp. 1-13).

[www.irma-international.org/article/smartphone-based-virtual-reality-as-an-immersive-tool-for-teaching-marketing-concepts/273628](http://www.irma-international.org/article/smartphone-based-virtual-reality-as-an-immersive-tool-for-teaching-marketing-concepts/273628)

### Embracing SoTL in Malaysia: Redefining My Role From Traditional Researcher to Reflective Educator

Hadijah Jaffri (2025). *Scholarship of Teaching and Learning (SoTL) in Asian Higher Education* (pp. 339-356).

[www.irma-international.org/chapter/embracing-sotl-in-malaysia/365229](http://www.irma-international.org/chapter/embracing-sotl-in-malaysia/365229)

### Using Experiential Learning to Improve Student Attitude and Learning Quality in Software Engineering Education

Ferdinand Ndifor Che, Kenneth David Strangand Narasimha Rao Vajjhala (2021). *International Journal of Innovative Teaching and Learning in Higher Education* (pp. 1-22).

[www.irma-international.org/article/using-experiential-learning-to-improve-student-attitude-and-learning-quality-in-software-engineering-education/273133](http://www.irma-international.org/article/using-experiential-learning-to-improve-student-attitude-and-learning-quality-in-software-engineering-education/273133)