

# Chapter 10

## Feedforward. The Key to Improve Learning in Higher Education

**Maite Fernández-Ferrer**  
*University of Barcelona, Spain*

**Laura Pons-Seguí**  
*University of Barcelona, Spain*

### ABSTRACT

*In higher education context, it is important to stimulate feedback and students' self-regulation. Shute (2007) ensures that giving a formative feedback means to communicate information to the students to change their thinking or behavior in order to improve their learning. This improvement through constant feedback has been the basis of the experience presented below. The work presented here is part of the project "Design, implementation and evaluation of proposals for sustainable feedforward" (reference REDICE2014-966), funded by the Institute of Education Sciences at the University of Barcelona, which aims to design and implement feedforward practices in different degrees at the Spanish universities participating in the project. The analysis of this research highlights what kind of feedback is being implemented in higher education and which the perceptions of students and teachers relating to the implemented practices and the obtained results are.*

### INTRODUCTION

The Higher Education European framework has placed the student in the center of the learning process. This new approach has defined the teaching process in terms of students' learning outcomes, by looking for the coherence between these learning outcomes, the tasks and the assessment (Biggs, 2003).

In this context, the feedback is a process that enables students to obtain information about their work in order to identify some general guidelines that can be applied in any kind of task or project. Moreover, the feedback makes possible students can recognize the strengths of their task so that they can elaborate

DOI: 10.4018/978-1-5225-0531-0.ch010

### ***Feedforward. The Key to Improve Learning in Higher Education***

a better work (Boud & Molloy, 2013:6). When the students are given the necessary information to correct their errors, teachers are guiding their students so that they can acquire the contents (Shute, 2008).

There are several studies that have proven feedback has a relevant impact on students learning (Black & Wiliam, 1998). Feedback plays a key role to decrease the gap between what the students currently know and their learning goals (Sadler, 1989; Mory, 2003; Poulos & Mahony, 2008). Therefore, the fact that feedback is effective or is significant for the student's learning and performance (Carless, Salter, Yang & Lam, 2011). Moreover, feedback can improve students' confidence and motivation to learn (Yuan & Kim, 2015).

Thereby, feedback is one of the most powerful education strategies that is related to the student's success (Boud, 2000; Nicol, Thomson & Breslin, 2014). Provide feedback to the students can be a key strategy to build their knowledge reflectively (Nicol, 2013) provided that the student knows what to do with this feedback, as well as, he internalizes professors' messages so that he can self-assess his work. Hence, provide feedback is one of the educative strategies that can have a major impact on student's success and in his learning improvement. Feedback can be provided by the professor or the students. However, previous research has proven that professors' feedback tends to be more accurate and provides more information (Luo & Gao, 2012).

In this context, a lot of research has been conducted to improve learning and teaching process through feedback. However, it is necessary to take into account that exist some important characteristics that determinate if a feedback is effective or not (Yuan & Kim, 2015). The first element is *the content of the feedback*. Feedback is effective when the content provided is specific (Mory, 2003; Hattie & Timperley, 2007) and it should inform students about their learning goals and how to improve their work (Yuan & Kim, 2015). A second element is *the timing of the feedback*. When the feedback is not provided regularly enough, the students tend to lose interest in it and focus their attention on something new (Gibbs & Simpson, 2003). A third aspect is *the dialogue through feedback*. The students must understand the feedback in order to use it (Price, 2005), even though, in many cases, it is too difficult for the students to understand it. Fourthly, the *source of feedback* is also important. In general, feedback is more effective when it comes from different sources and not just from a single one (Brinko, 1993). Finally, it is important the student *follow-up with feedback*. That is, for an effective feedback, the students need to act towards it, although feedback is not well-used or not used in some occasions (Bloxham & Campbell, 2010). To motivate students to use the feedback, students could ask their students to revise their work based on the feedback received to rewrite the work and send it again to the teacher (Covic & Jones, 2008).

According to Hounsell, McCune, Litjens and Hounsell (2008) a good feedback must have the following four characteristics:

1. Involve the students to define what a high-quality result is.
2. Motivate the students to develop self-assessment and self-regulation skills.
3. Enable students to set their goals and plan their learning process.
4. Promote assessment tasks that increase students' agreement and dedication.

As Boud and Molloy (2013) have highlighted, feedback is key nowadays due to students' diversity and professional profiles but, above all, due to the continuous learning framework. Feedback is really important not only for those who receive the feedback, but also for those who provide it. Feedback specially helps students to develop collaborative competencies because they have to assess their classmates work from a critical perspective (Nicol & MacFarlane, 2005; Boud & Molloy, 2013).

17 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/feedforward-the-key-to-improve-learning-in-higher-education/159974](http://www.igi-global.com/chapter/feedforward-the-key-to-improve-learning-in-higher-education/159974)

## Related Content

---

### The Effect of Psychological Safety on the Performance of Students in Graduate-Level Online Courses

George Hanshaw and Jacob Hanshaw (2023). *International Journal of Innovative Teaching and Learning in Higher Education* (pp. 1-21).

[www.irma-international.org/article/the-effect-of-psychological-safety-on-the-performance-of-students-in-graduate-level-online-courses/333864](http://www.irma-international.org/article/the-effect-of-psychological-safety-on-the-performance-of-students-in-graduate-level-online-courses/333864)

### Bridging the Gaps of "Science/Social Science Education-Technology" With Values-Based Framework Development: Exemplary Transdisciplinary Studies Related to STREAM

Khar Thoe Ng, Suma Parahakaran, Kamolrat Intaratat, Xing Zhi Guan, Yoon Fah Lay, Jing Hang Ng, Eng Tek Ong, Yu Yan Ng, Endah Retnowati, Masanori Fukui, Subuh Anggoro and Rajendra Kumar (2024). *Transdisciplinary Approaches to Learning Outcomes in Higher Education* (pp. 347-379).

[www.irma-international.org/chapter/bridging-the-gaps-of-sciencesocial-science-education-technology-with-values-based-framework-development/353053](http://www.irma-international.org/chapter/bridging-the-gaps-of-sciencesocial-science-education-technology-with-values-based-framework-development/353053)

### Digital Badge Use in Specific Learner Groups

Jacob H. Askeroth and 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)

### Considering the Differing Practical and Professional Needs of Adult Undergraduate Students in the Online Learning Environment

Janine Jacqueline Allwright and Christy B. Fraenza (2024). *Adjunct Faculty in Online Higher Education: Best Practices for Teaching Adult Learners* (pp. 49-65).

[www.irma-international.org/chapter/considering-the-differing-practical-and-professional-needs-of-adult-undergraduate-students-in-the-online-learning-environment/337401](http://www.irma-international.org/chapter/considering-the-differing-practical-and-professional-needs-of-adult-undergraduate-students-in-the-online-learning-environment/337401)

### Hardware-Free Network Internals Exploration: A Simulation-Based Approach for Online Computer Networking Course

Qian Liu (2024). *International Journal of Innovative Teaching and Learning in Higher Education* (pp. 1-16).

[www.irma-international.org/article/hardware-free-network-internals-exploration/339002](http://www.irma-international.org/article/hardware-free-network-internals-exploration/339002)